E

OLYMPUS OM G

REPAIR MANUAL

INDEX

PARTS LIST AND EXPLODED PARTS DIAGRAM

A. GENERAL OUTLINE..... A - 1

B. INSPECTION STANDARD .....B - 1

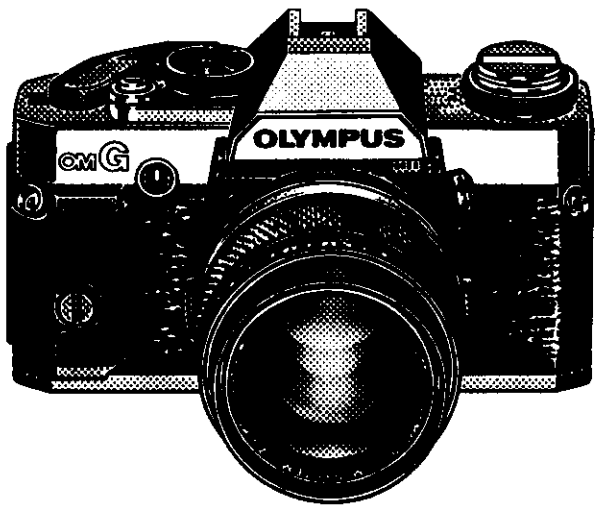
C. DISASSEMBLING PROCEDURES .....C - 1

D. REASSEMBLING AND ADJUSTING PROCEDURES .....D - 1

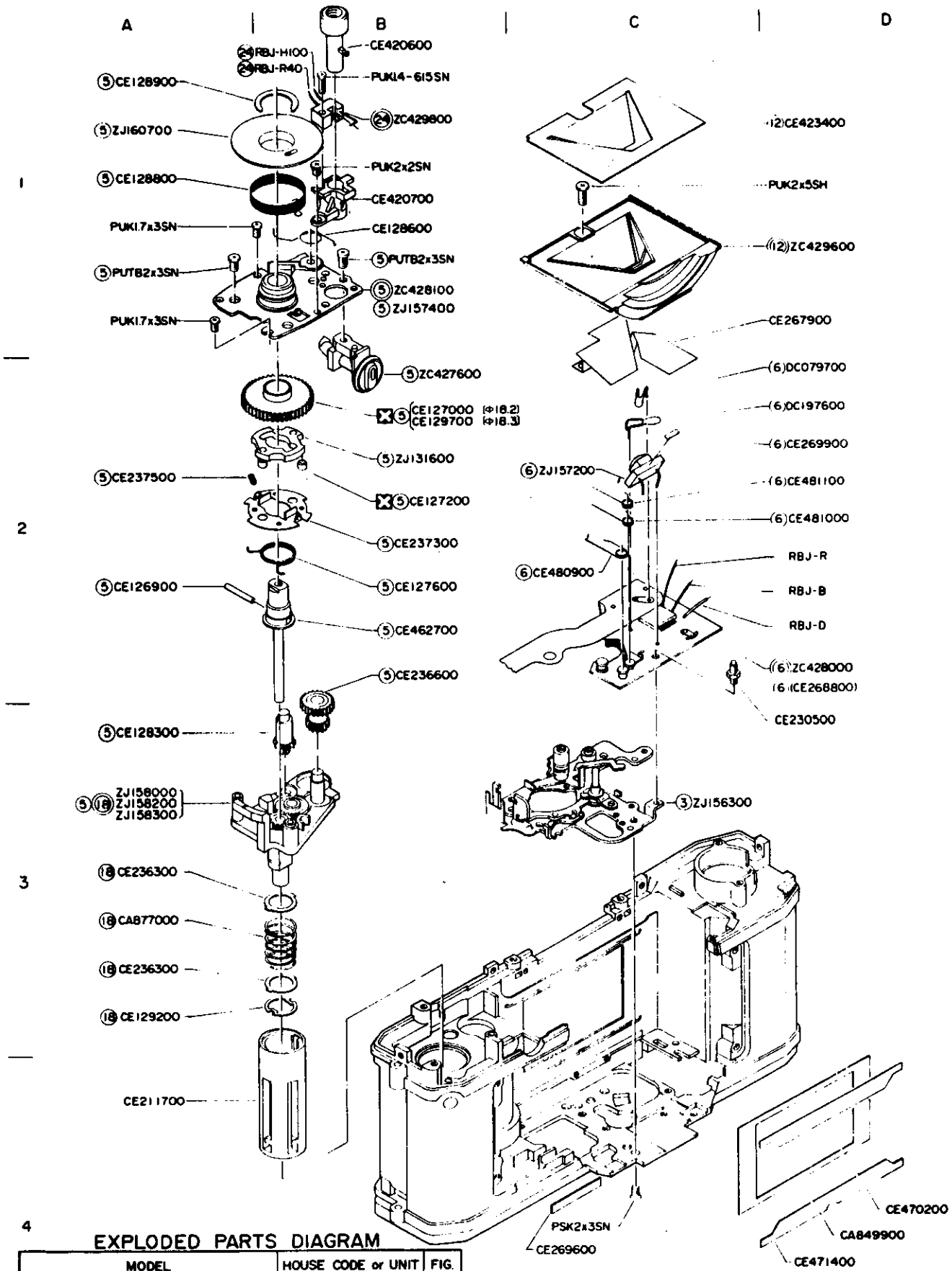
G. PARTS WHERE OIL, GREASE etc SHALL BE USED..... G - 1

I. DESCRIPTION OF MECHANISMS ..... I - 1

J. OTHERS.....J - 1



OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	2/8
OLYMPUS OPTICAL CO. LTD. TOKYO, JAPAN		

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

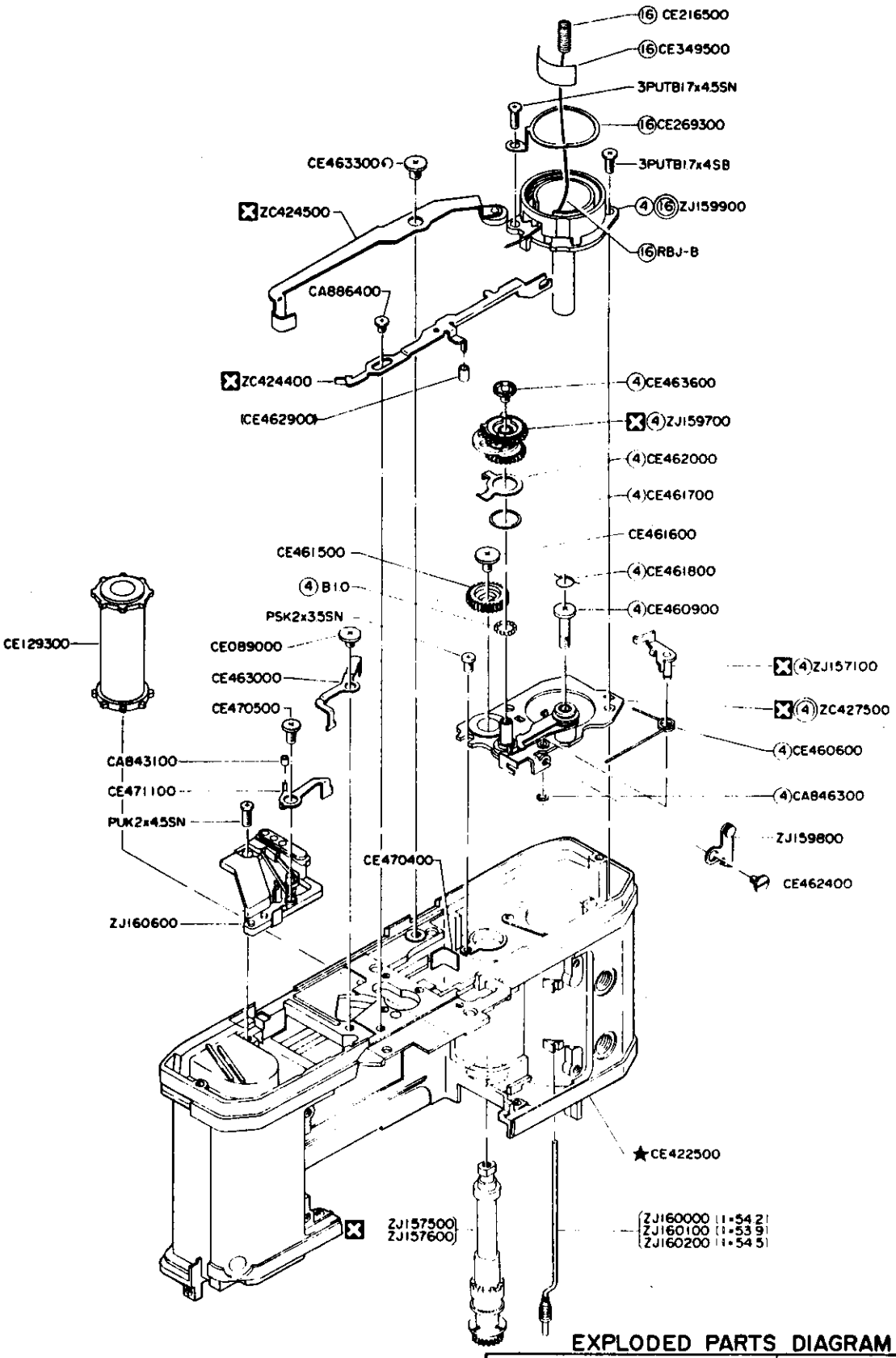
A | B | C | D

1

2

3

4

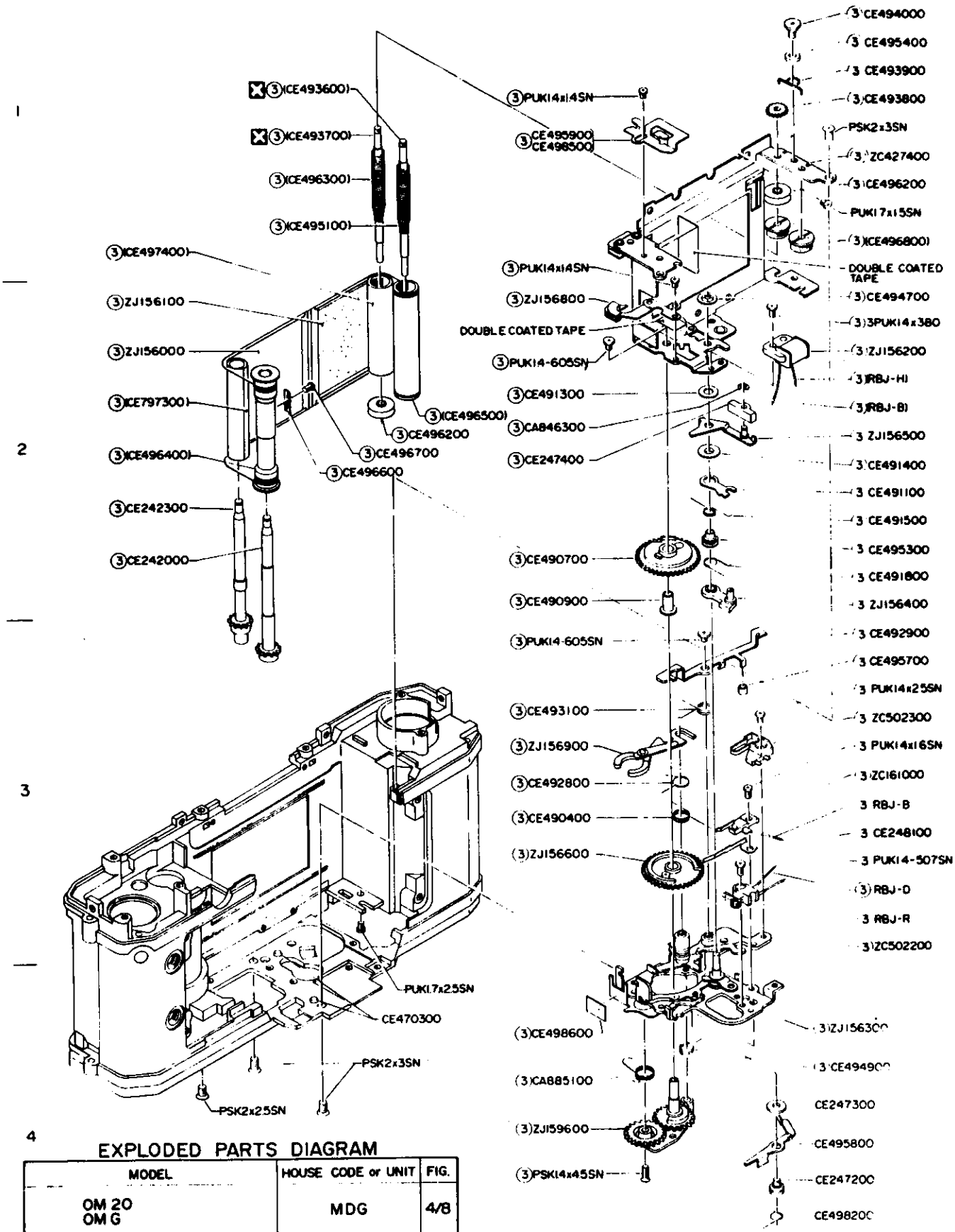


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	3/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY



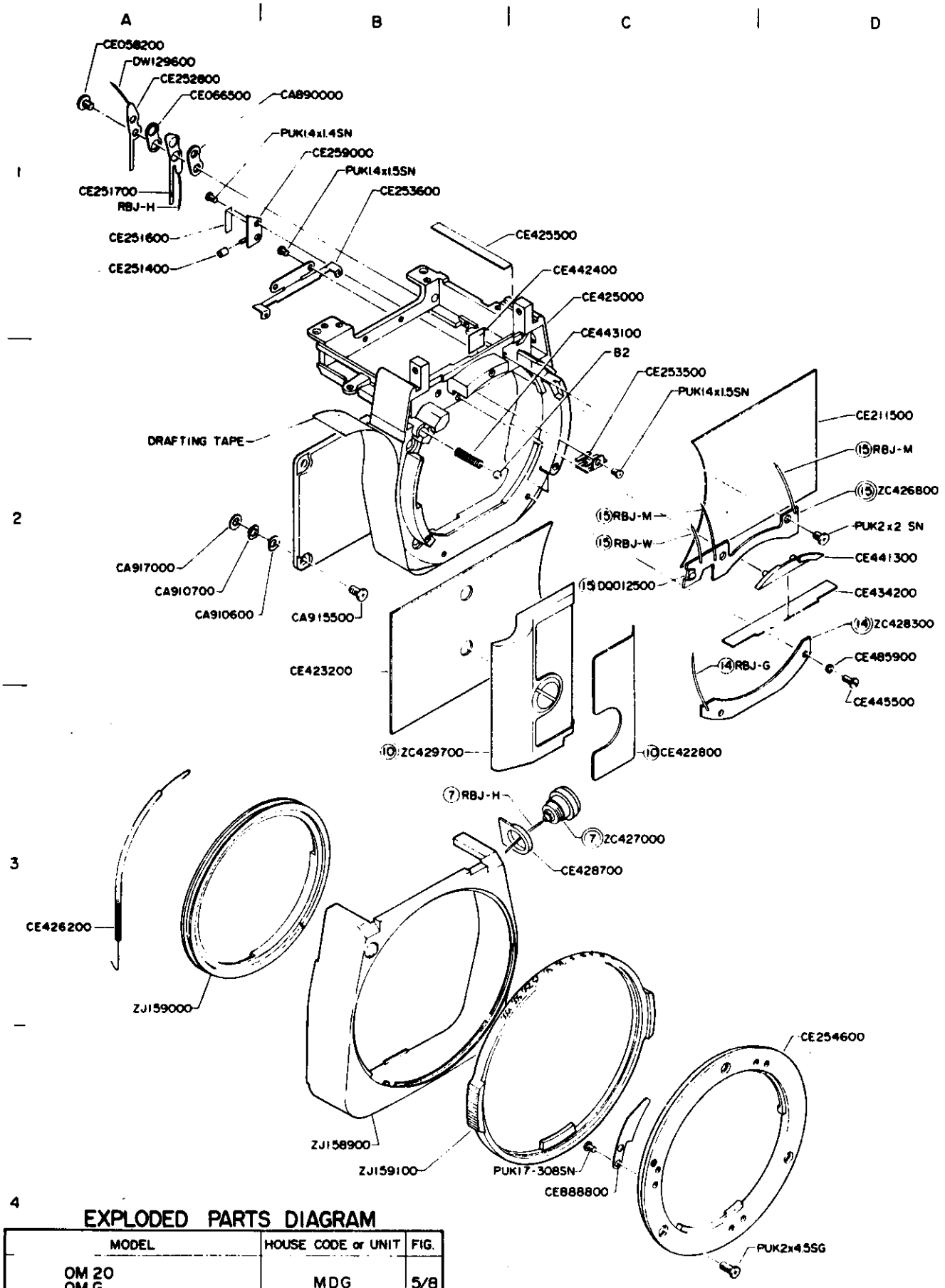
EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	4/8

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



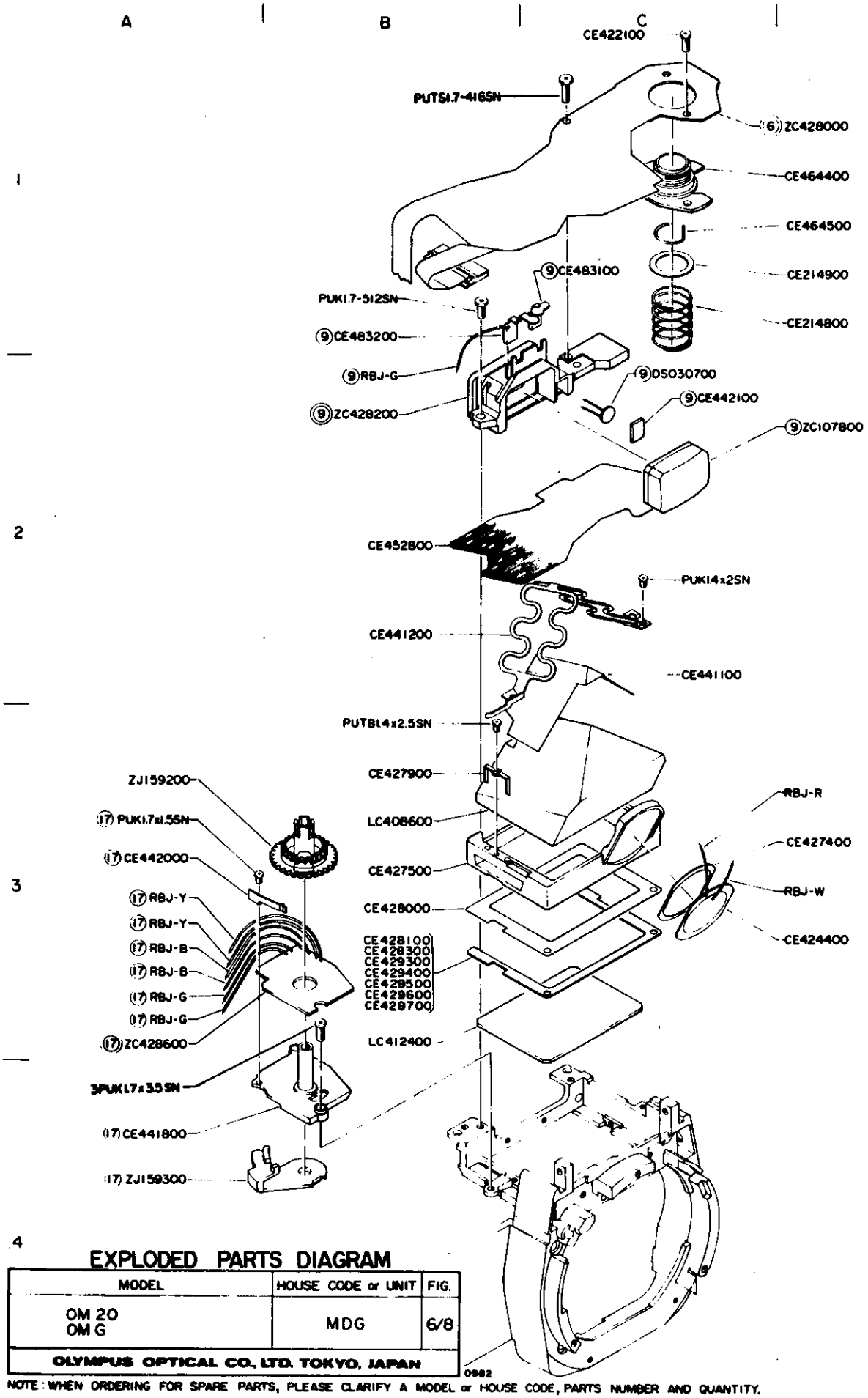
EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	5/8

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

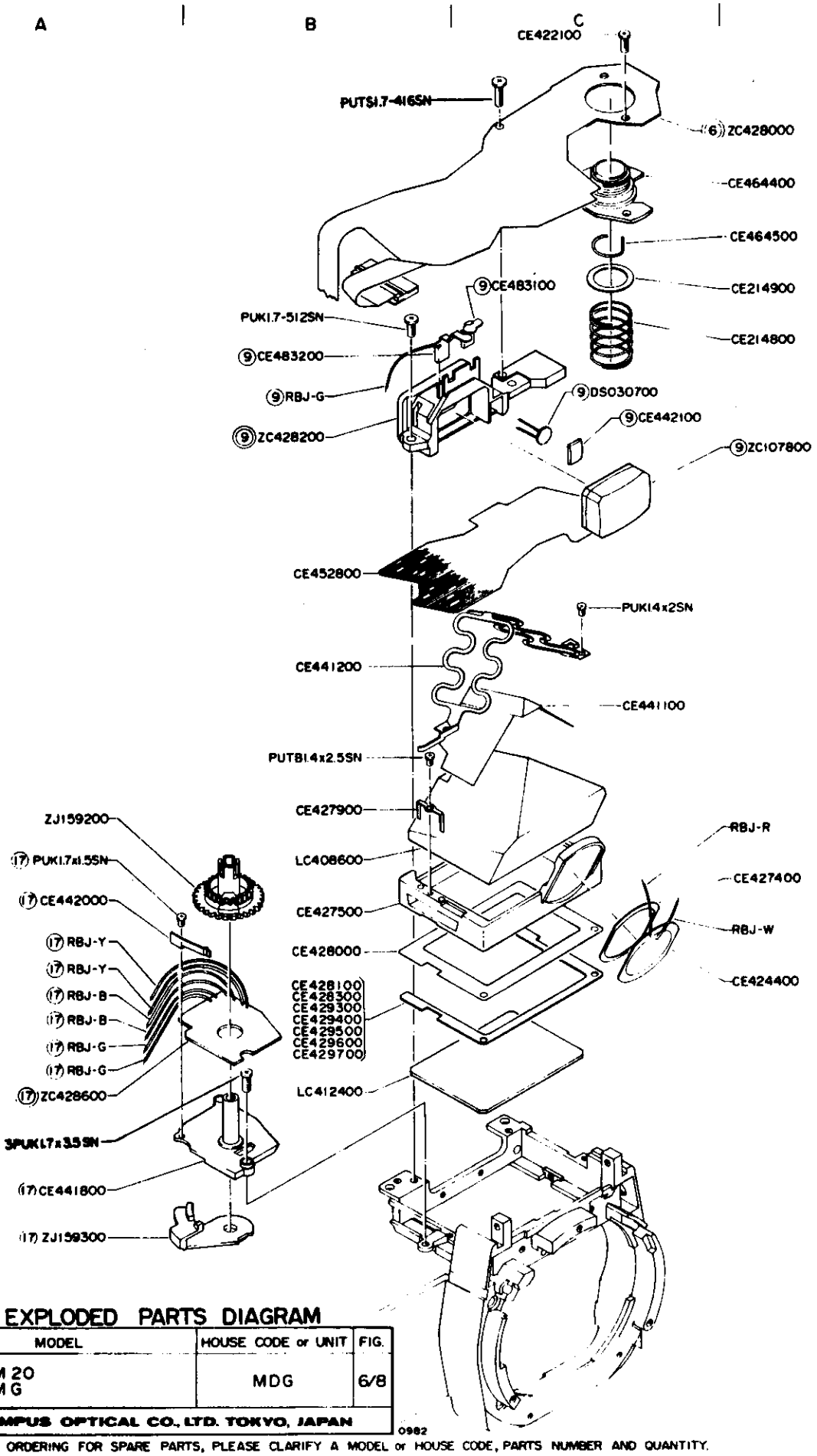


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	6/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MDG	6/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

A

GENERAL OUTLINE

A. GENERAL OUTLINE

1. Outline of Product

Model NAM: OLYMPUS OM20/OMG
House Code: MDG

2. Main Specifications

Type:
35 mm single lens reflex camera with Off-the-Film (OTF) automatic exposure control

Film format:
24 mm x 36 mm

Lens mount:
Olympus OM-Mount, bayonet type

Shutter:
Horizontal electronic control type focal plane shutter with automatic exposure controls from 2 sec. to 1/1000 sec.

Flash synchronization:
X contact. Hot shoe with direct contact for OM T-series electronic flash units and synchro socket (standard P.C.)

Automatic exposure control:

1. Type: Aperture-preferred electronic shutter
2. Measuring method: TTL Direct Off-the-Film (OTF) Light Measuring
3. Measuring range: 2 sec. to 1/1000 sec. (ASA 100) (ASA100, at normal temperature and humidity)
4. Exposure compensation: ±2 EV in 1/3 increments on rotating dial
5. Flash synchro: Automatic X synchro, with T-series flash units (1/60 sec.)

Manual exposure control:
B, 1—1/1000 sec. (X synchro, at shutter speeds 1/60 sec. or slower)

Film speed range:
ASA 25 to 1600

Film advance:
Lever type with 130° angle for one long or several short strokes, 30° pre-advance angle. Motor drive and winder units attachable.

Viewfinder:
Pentaprism eye-level type. Wide field finder with brilliant Lumi-Micron Matte focusing screen with central microprism/split image rangefinder. Finder view-field: 93% of actual picture field. Finder magnification: 0.92X with 50 mm lens at infinity.

Indications in viewfinder:
Microprism/split-image rangefinder. Digital LED shutter speed display in 11 steps. LED overexposure warning (OVER). LED full flash charge with LED (ϟ 60). Correct flash exposure with LED (ϟ 60, flickering). Manual override indication with mode indicator (MANU). Exposure compensation notification with ± indicator mark.

Reflex mirror:
Multicoated oversize quick return mirror.

Self-timer:
Electronic type self-timer with about 12 sec. delay and audio-visual indication.

Exposure indicator switch:
LED display is activated by selector dial or shutter release button and switches off after about 90 sec. to conserve power.

Accessory shoe:
Fixed, with direct flash contacts.

Steady grip:
Interchangeable (three types). (Type 1 standard supplied).

Battery check:
Dual safety indication: Audio-visual indicator (LED light and electronic tone). Mirror locks up when batteries are exhausted.

Power source:
Two 1.5V alkaline-manganese batteries (LR 44) or silver oxide batteries (SR44).

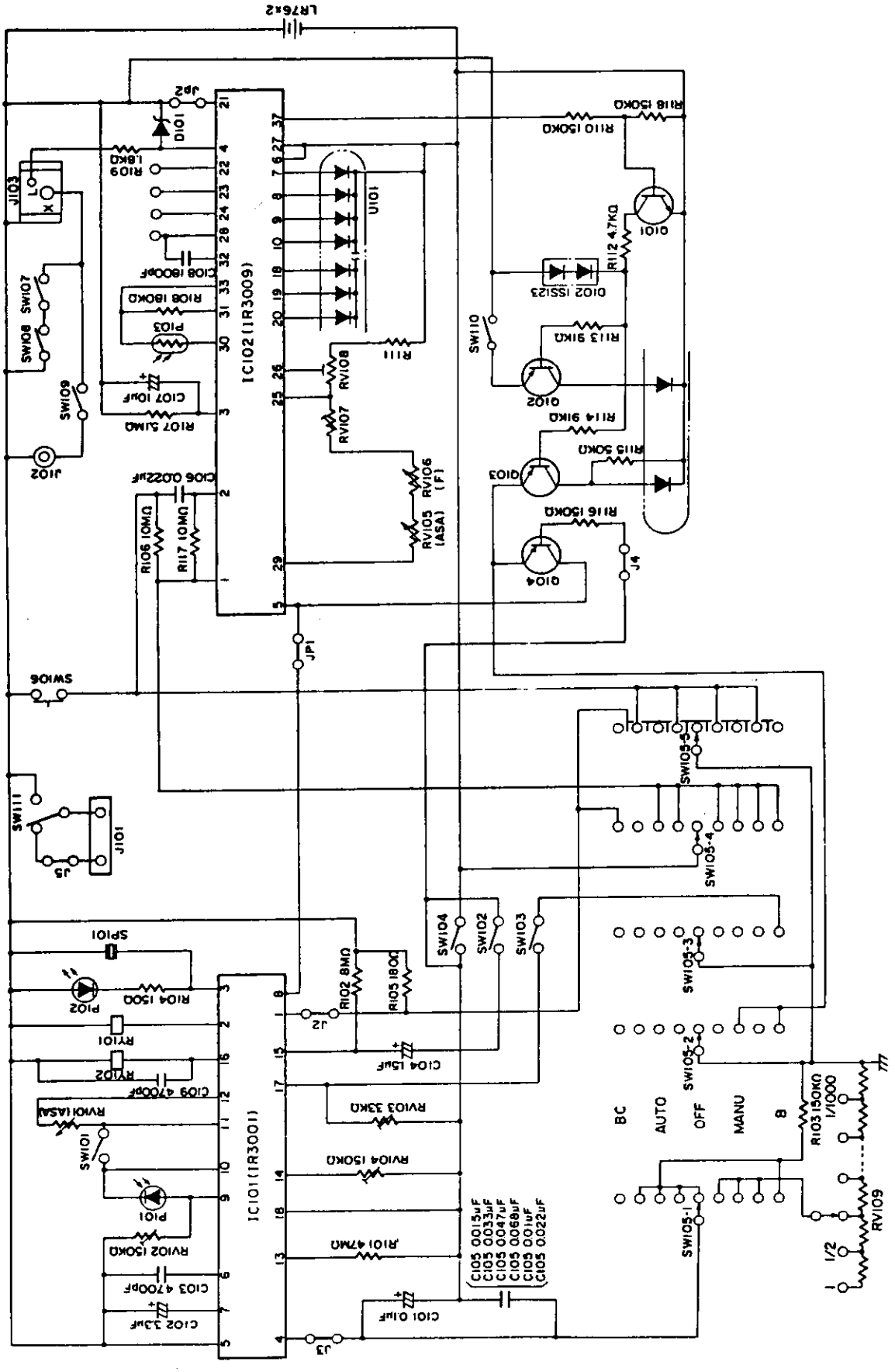
Camera back:
Hinged type with memo holder.

Dimensions:
Body only: (W) x (H) x (D)
135 x 84 x 50 mm (5.3 x 3.3 x 1.97 in.)
With 50 mm F1.4:
135 x 84 x 89 mm (5.3 x 3.3 x 3.5 in.)
With 50 mm F1.8:
135 x 84 x 81 mm (5.3 x 3.3 x 3.2 in.)

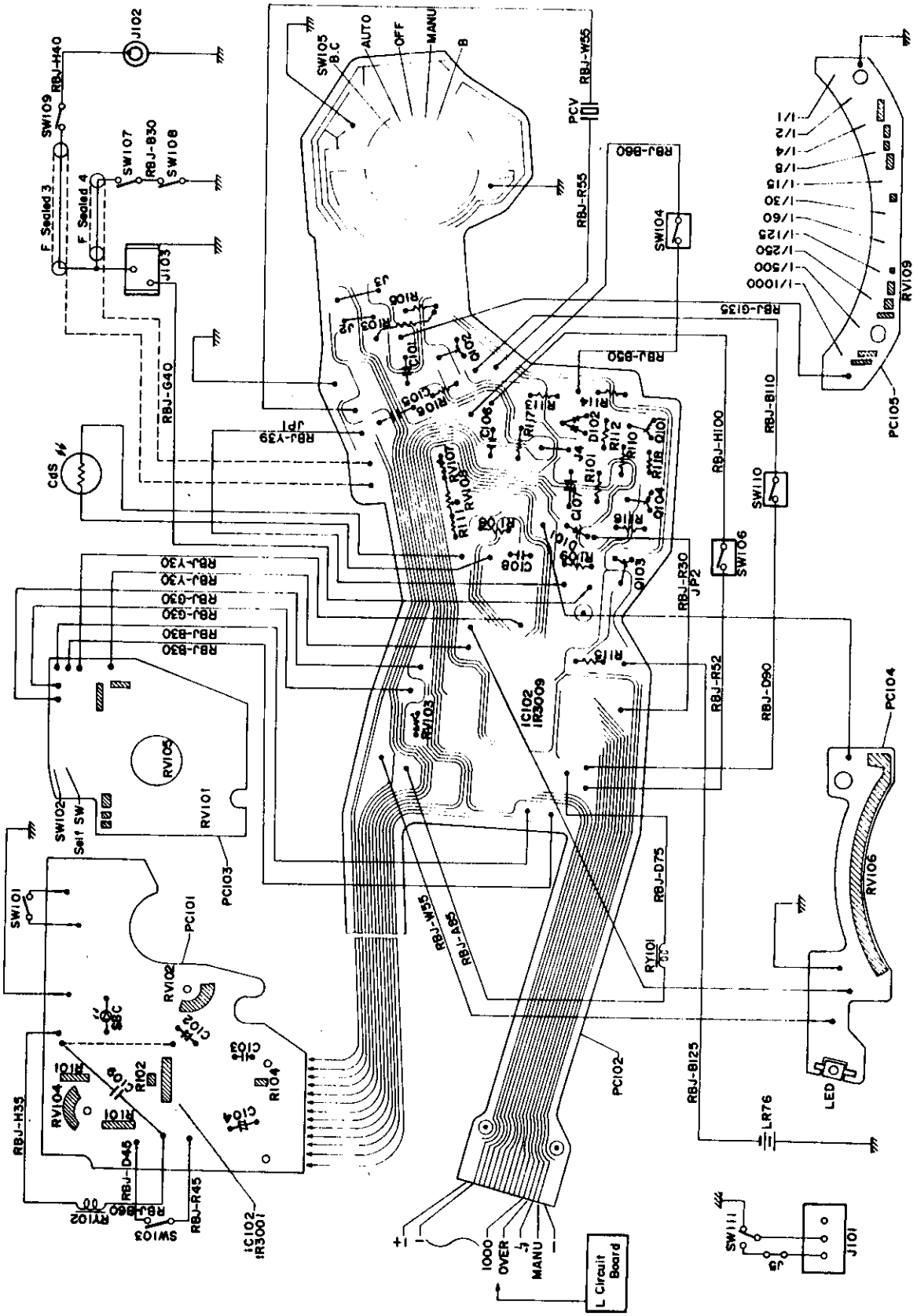
Weight:
Body only: 430 g (15.2 oz.)
With 50 mm F1.4: 660 g (23.3 oz.)
With 50 mm F1.8: 590 g (20.8 oz.)

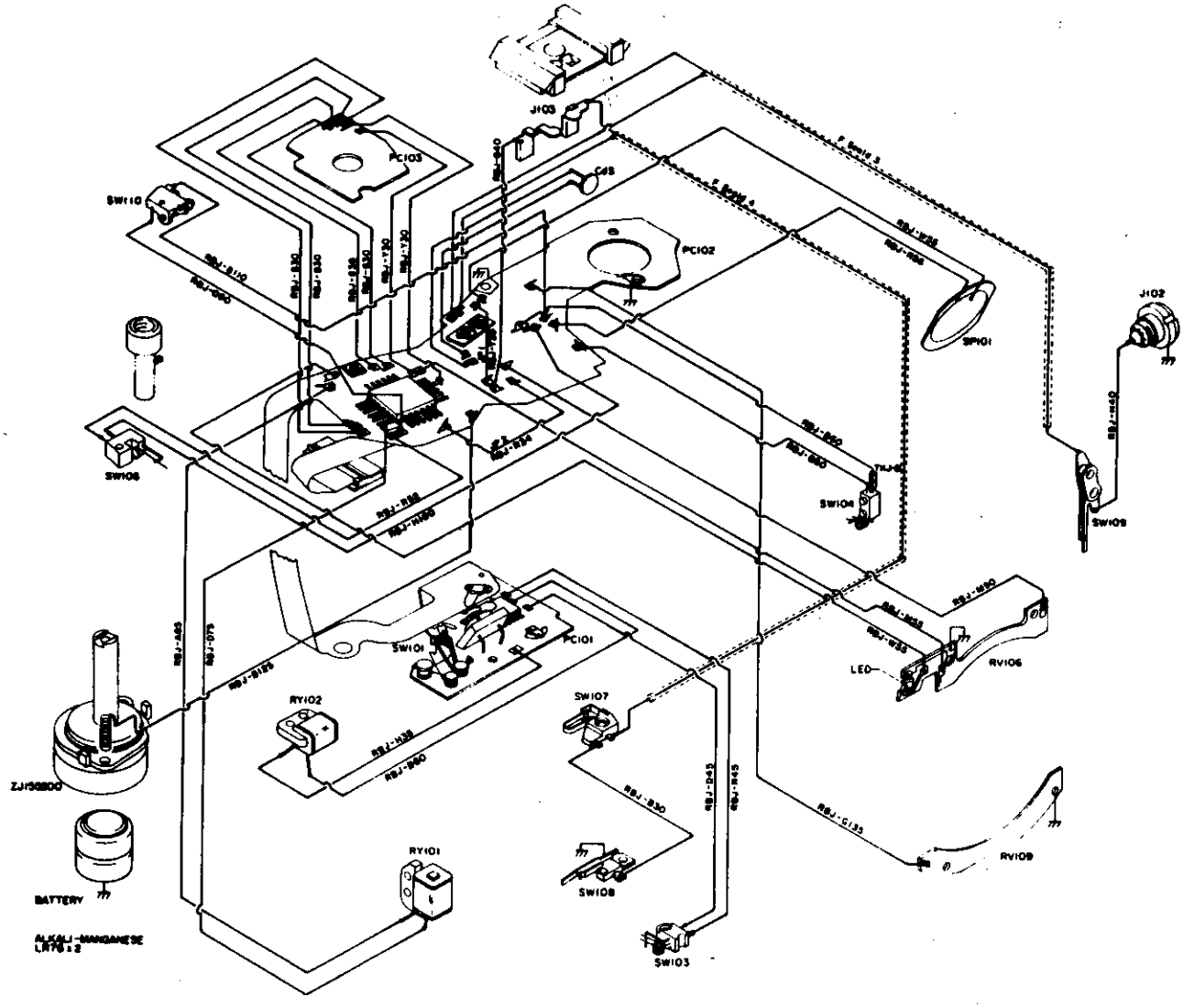
(Specifications are subject to change without notice.)

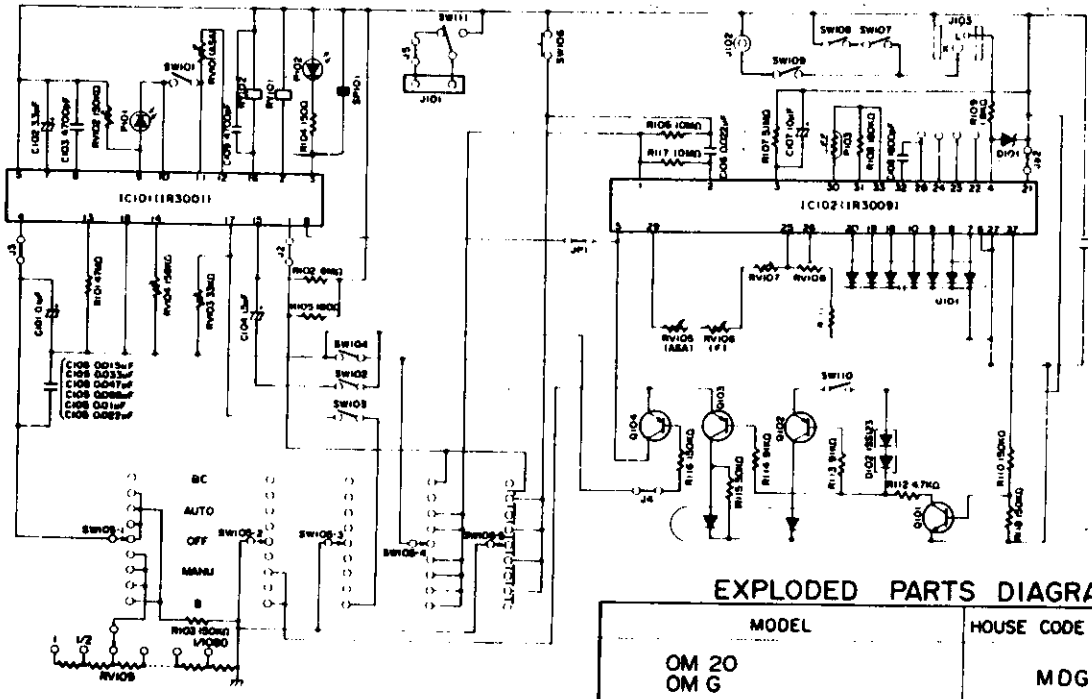
MDG CIRCUIT DIAGRAM



MDG WIRING DIAGRAM







EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 OM G	MOG	8/8

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

0982

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

PARTS LIST
AND
EXPLODED PARTS DIAGRAM

PARTS LIST MDG 1/5

PARTS NO.	NAME OF PARTS	NOTE
CA840400	M LEVER SCREW	7-C2
CA841900	M HOOK	7-C3
CA843100	TUBE 1	3-A3
CA844300	M ROLLER	7-D2
CA846300	E RING 0.8	3-C3,4-D2,7-A3
CA847900	M SHAFT	7-B3
CA849900	B MASK	2-D4
CA872200	KEY SPRING	1-D2
CA877000	SPOOL SPRING	2-A3
CA885100	GEAR #3 SPRING	4-C4
CA886400	KL SHAFT	3-B2
CA888800	MOUNT SPRING	5-C4
CA890000	INSULATING PLATE	5-B1
CA910600	SHIM 1	5-A3
CA910700	SHIM 2	5-A3
CA915500	FRONT SCREW	5-B2
CA917000	SHIM 3	5-A2
CA937700	GUIDE	1-B3
CE057800	SR TUBE	7-D2
CE058200	F SCREW	5-A1
CE066500	INSULATING PLATE	5-A1
CE089000	K SHAFT	3-B2
CE114600	GEAR #3 SCREW	7-C2
CE126900	WIND PIN	2-A2
CE127000	WIND GEAR #1	2-B2
CE127200	COLLAR	2-B2
CE127600	RETURNING SPRING	2-B2
CE128300	FC GEAR	2-A2
CE128600	FC SPRING 1	2-B1
CE128800	FC SPRING 2	2-A1
CE128900	FC STOPPER	2-A1
CE129200	SPOOL STOPPER	2-A3
CE129300	SPROCKET	3-A2
CE129700	FW GEAR 12	2-B2
CE201800	R SCREW	1-C1
CE210800	PIN	1-A4
CE211100	LIGHT PROOF	1-B3
CE211300	LIGHT PROOF	1-A3
CE211500	FRONT SIDE LEATHER	5-D2
CE211700	SPOOL B	2-A3
CE212000	KEY PLATE A	1-D3
CE212100	KEY COVER	1-D3
CE213300	STRAP RING	1-D3
CE213400	S PIN 18	1-D2
CE214000	P LIGHT PROOF	1-B3
CE214300	LIGHT PROOF	1-A3
CE214800	R COLLAR SPRING	6-D1
CE214900	SPRING HOLDER	6-D1
CE215100	R COLLAR	1-C2
CE215200	R SHAFT	1-C2
CE215500	L SCREW 1	1-D4
CE215600	L SCREW 2	1-B4
CE215700	COVER	1-B4
CE216100	KL COVER	1-B4
CE216500	MINUS CONTACT POINT	3-C1
CE216900	SIDE COVER	1-A4
CE230500	JM SHAFT	2-D3
CE236300	SPOOL PLATE	2-A3
CE236600	IDLE 1	2-B2
CE237300	SIDE SPRING 2	2-B2
CE237500	C SPRING A	2-A2
CE242000	DRUM SHAFT AM	4-A2
CE242300	DRUM SHAFT BM	4-A2
CE247200	KS SHAFT	4-D4
CE247300	KS WASHER	4-D4
CE247400	PLATE 2	4-C2
CE248100	X CONTACT 1	4-D3
CE250200	1M TAPE	7-A2
CE251100	MS TUBE	7-C2
CE251400	MF INSULATOR	5-A1
CE251500	LIGHT PROOF	7-A1
CE251600	F INSULATOR	5-A1
CE251700	F LOWER CONTACT	5-A1
CE252800	F UPPER CONTACT	5-A1
CE253500	F HOLDER 1	5-C2
CE253600	F HOLDER 2	5-B1
CE254600	B MOUNT RING	5-D3
CE256800	A SPRING	7-C3
CE257400	LEVER COLLAR	7-C2
CE257900	M SHAFT	7-D2
CE258000	M SPRING	7-D2
CE258100	D SPRING	7-D2
CE258200	RETURNING SPRING	7-C2
CE258500	BASE PLATE S.S	7-D1
CE258600	RUBBER CUSHION 4	7-C2
CE259000	MS BASE PLATE	5-B1
CE259400	M STOPPER SPRING	7-C2
CE259500	M SPRING	7-C2
CE266500	SHIM 4	7-B2
CE266700	1M LIGHT PROOF	7-A2
CE266800	SHIM 5	7-B2
CE267900	PLATE SEAL	2-D1
CE269300	PLUS LEAD WIRE	3-C1
CE269600	COVERING PLATE	2-C4
CE269900	L CAP	2-D2
CE349500	B LABEL	3-C1
CE420300	R KNOB	1-D1

PARTS LIST MDG 2/5

PARTS NO.	NAME OF PARTS	NOTE
CE420500	C SPRING	1-C2
CE420600	SR BUTTON	2-B1
CE420700	BUTTON GUIDE	2-B1
CE420800	A KNOB	1-B1
CE420900	AS COVER	1-B1
CE421000	ST LEVER A	1-B1
CE421600	GRIP	1-A4
CE421700	GRIP PLATE	1-A2
CE421800	R LEVER SPRING	1-C1
CE421900	BUTTON WASHER	1-B2
CE422000	GRIP SCREW	1-A1
CE422100	R CIRCUIT SCREW	6-C1
CE422500	(CAMERA BODY)	1-D3,3-C4
CE422800	LEATHER G	5-C3
CE422900	H SCREW G	1-B4
CE423000	GUIDE RING	1-B4
CE423200	LEATHER R	5-B2
CE423400	LIGHT PROOF T	2-D1
CE423500	LIGHT PROOF R1	1-A4
CE423600	LIGHT PROOF L1	1-C3
CE424400	BUZZER 2	6-D3
CE425000	FRONT SIDE BODY	5-C1
CE425500	M CUSHION S	5-C1
CE425700	LIGHT PROOF R2	7-B3
CE425800	LIGHT PROOF L2	7-C3
CE426200	CL SPRING	5-A3
CE426400	KM SPRING 2	7-B3
CE426500	RUBBER CUSHION	7-B2
CE427400	PCV COLLAR	6-D3
CE427500	P FRAME	6-B3
CE427900	LED HOLDER	6-B3
CE428000	F MASK	6-B3
CE428100	F WASHER 2	6-B3
CE428300	F WASHER 8	6-B3
CE428700	SOCKET COVER	5-C3
CE429300	F WASHER 5	6-B3
CE429400	F WASHER 10	6-B3
CE429500	F WASHER 20	6-B3
CE429600	F WASHER 30	6-B3
CE429700	F WASHER 40	6-B3
CE430600	SL SPRING	7-B3
CE431100	S SPRING	7-A3
CE431500	45 ADJUSTOR	7-B3
CE431600	SL CUSHION	7-A3
CE431700	MG COVER	7-A3
CE432100	C COVER	7-A3
CE434200	M CUSHION F	4-D2
CE441100	P COVER	6-C2
CE441200	P HOLDER	6-B2
CE441300	COVERING PLATE	4-D2
CE441800	A CIRCUIT WASHER	6-A4
CE442000	A CLICK	6-A3
CE442100	CDS LENS	6-C2
CE442400	DUST PROOF	5-C1
CE443100	SD SPRING	5-C1
CE445500	SD SCREW	5-D2
CE450500	FC COVER	1-B2
CE451100	A KNOB SPRING	1-B1
CE451200	ASA PLATE	1-B1
CE451300	ASA SCREW	1-B1
CE451700	R STOPPER NUT	1-D1
CE452800	U INSULATOR	6-B2
CE460600	CC SPRING	3-D3
CE460900	M HOLDER SCREW	3-C2
CE461500	GEAR #1	3-B2
CE461600	GEAR #1 SCREW	3-C2
CE461700	CLAW SPRING	3-C2
CE461800	L SPRING	3-C2
CE462000	K CLAW	3-C2
CE462400	C SCREW	3-D2
CE462700	FW SHAFT	2-B2
CE453000	KR PLATE	3-B3
CE453300	M LEVER SHAFT	3-B1
CE453600	ME GUIDE 3	3-C2
CE464400	R SHAFT HOLDER	6-D1
CE464500	R SPRING	5-D1
CE470200	LIGHT PROOF U	2-D4
CE470300	S GUIDE	4-B2
CE470400	LIGHT PROOF K	3-B2
CE470500	SW SHAFT	3-B2
CE471100	SW LEVER	3-A3
CE471400	LIGHT PROOF L	2-D4
CE472400	TRIPOD SCREW	1-C4
CE473000	R LEATHER L	1-C3
CE473100	R LEATHER R	1-C3
CE480900	T CONTACT R	2-C2
CE481000	T CONTACT L	2-D2
CE481100	T CONTACT W	2-D2
CE483100	XM SPRING	6-C1
CE483200	LE SPRING	6-B1
CE485900	CB HOLDER	5-D2
CE490400	S SPRING	4-C3
CE490700	GEAR BM	4-C2
CE490900	GEAR SHAFT B	4-C2
CE491100	A CLAW B	4-D2
CE491300	A WASHER	4-C2
CE491400	A COLLAR	4-D2
CE491500	A SPRING A	4-D2

PARTS LIST

MDG 3/5

PARTS NO.	NAME OF PARTS	NOTE
CE491800	A SPRING B	4-D2
CE492800	B SPRING	4-C3
CE492900	M LEVER	4-D3
CE493100	M LEVER SPRING	4-C3
CE493800	T NUT	4-D1
CE493900	T STOPPER	4-D1
CE494000	T SHAFT	4-D1
CE494700	S PIN 15	4-D2
CE494900	RETURNING SPRING	4-D4
CE495300	A SHAFT	4-D2
CE495400	T WASHER	4-D1
CE495700	M TUBE	4-D3
CE495800	KS LEVER	4-D4
CE495900	U STOPPER 1	4-C1
CE496200	ROLLER D	4-B2,D2
CE496600	ADJUSTOR	4-B2
CE496700	AD SCREW	4-B2
CE498200	KS SPRING	4-D4
CE498500	U STOPPER 2	4-C1
CE498600	L LIGHT PROOF	4-C4
LC408600	PENTA PRISM	6-B3
LC412300	MIRROR	7-A1
LC412400	FOCUSING SCREEN	6-B3
ZC107800	EYE PIECE LENS	6-D2
ZC161000	FX BASE	4-D3
ZC164100	PRESSURE PLATE 3	1-A2
ZC182700	PRESSURE PLATE 4	1-A2
ZC182800	PRESSURE PLATE 5	1-A2
ZC182900	PRESSURE PLATE 6	1-A3
ZC183000	PRESSURE PLATE 7	1-A3
ZC424400	KL PLATE	3-B2
ZC424500	KM LEVER	3-B1
ZC426800	FF CIRCUIT	5-D2
ZC426900	SIDE PLATE	7-B3
ZC427000	SOCKET	4-C3
ZC427400	SHUTTER UNIT	4-D1
ZC427500	L BASE PLATE UNIT	3-D2
ZC427600	K KNOB	2-B2
ZC428000	M CIRCUIT BOARD	2D2,6-D1
ZC428100	FW UNIT	2-B1
ZC428200	S FRAME	6-B2
ZC428300	SD2 CURCUIT	4-D5
~~ZC428500~~	~~TOP COVER (FOR OM-20)~~	~~1-D2~~
ZC428600	ASA CIRCUIT	6-A3
ZC429300	BOTTOM PLATE	1-D4
ZC429600	COVERING PLATE	2-D1
ZC429700	GRIP	5-B3

PARTS NO.	NAME OF PARTS	NOTE
ZC429800	R SWITCH	2-B1
ZC429900	R CHANGE MECHA.	1-D1
ZC501500	REAR COVAER	1-A3
ZC501600	M PLATE	7-B2
ZC502200	B SWITCH	4-D3
ZC502300	XR SWITCH	4-D3
ZJ131600	FW CLAW	2-B2
ZJ155300	D LEVER	7-C2
ZJ156000	2ND. CURTAIN	4-A2
ZJ156100	1ST. CURTAIN	4-A2
ZJ156200	COIL	4-D2
ZJ156300	S BASE PLATE	2-C3,4-D4
ZJ156400	K LEVER	4-D2
ZJ156500	A CLAW A	4-D2
ZJ156600	GEAR AM	4-C3
ZJ156800	L GUIDE	4-C2
ZJ156900	B LEVER	4-C3
ZJ157100	CAM LEVER	3-D2
ZJ157200	L BASE	2-C2
ZJ157400	U BASE PLATE	2-B1
ZJ157500	SP SHAFT (S)	3-B4
ZJ157600	SP SHAFT (L)	3-B4
ZJ157700	M BASE PLATE	7-D2
ZJ157800	M BASE PLATE	7-D2
ZJ157900	M BASE PLATE	7-D2
ZJ158000	SPOOL GEAR 1(M)	2-A3
ZJ158100	SIDE PLATE L	7-C3
ZJ158200	SPOOL GEAR 2(L)	2-A3
ZJ158300	SPOOL GEAR 3(S)	2-A3
ZJ158400	M CHARGE	7-C2
ZJ158500	M LEVER	7-D2
ZJ158600	SL LEVER	7-B3
ZJ158700	HOLDING PLATE	7-A3
ZJ158800	M SHAFT	7-A3
ZJ158900	FRONT COVER	5-B4
ZJ159000	CONNECTING RING	5-A3
ZJ159100	S DIAL	5-B4
ZJ159200	A LEVER	6-C3
ZJ159300	ST LEVER B	6-A4
ZJ159400	ACC. SHOE	1-C1
ZJ159500	R KNOB	1-D1
ZJ159600	BASE PLATE 4	4-C4
ZJ159700	2 GEASR 2	3-C2
ZJ159800	CRANK	3-D3
ZJ159900	B CASE	3-C1
ZJ160000	RELEASE SHAFT (M)	3-C4
ZJ160100	RELEASE SHAFT (S)	3-C4
ZJ160200	RELEASE SHAFT (L)	3-C4

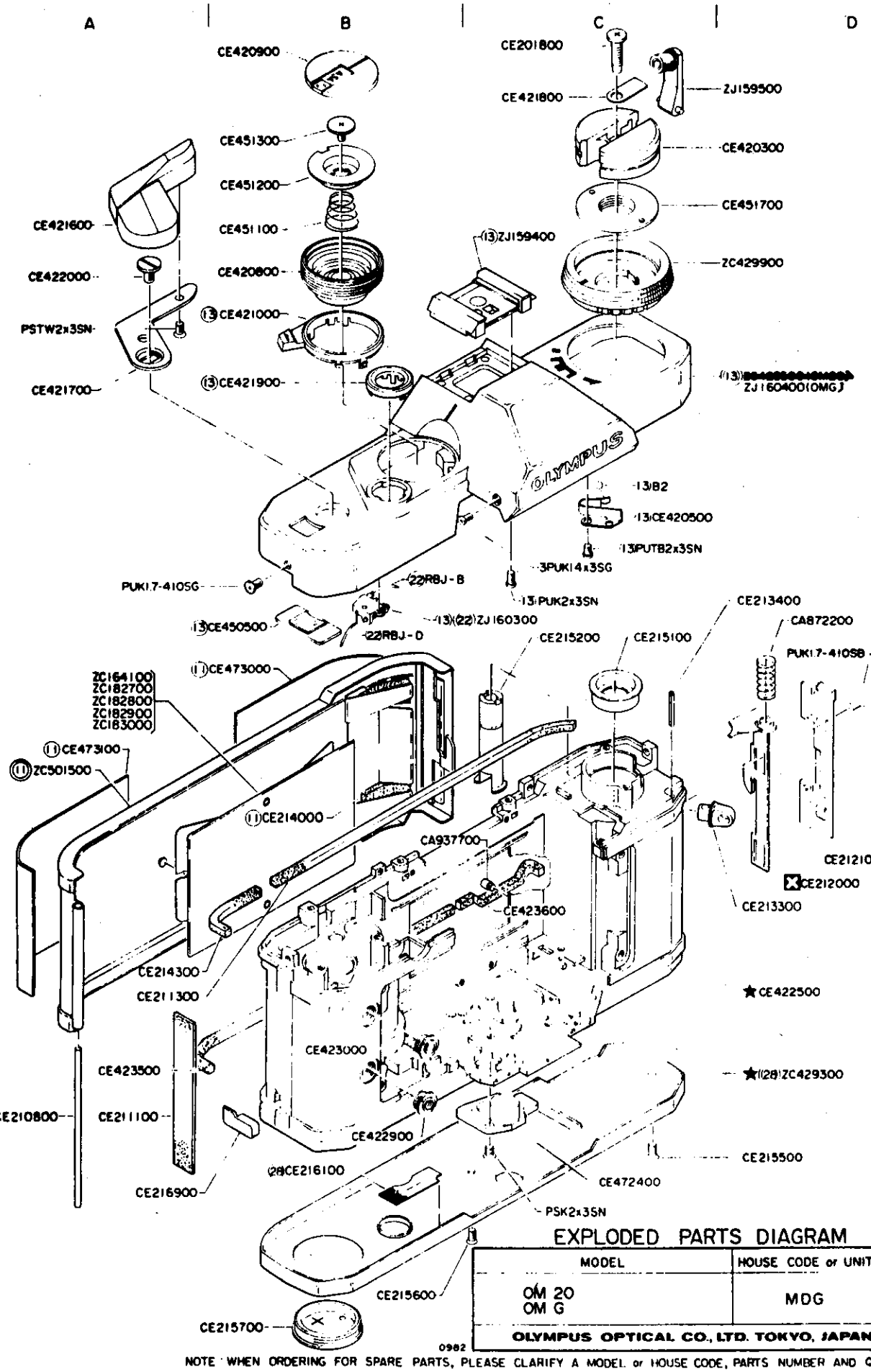
PARTS LIST

MDG 4/5

PARTS NO.	NAME OF PARTS	NOTE
ZJ160300	PM CELL	1-C2
ZJ160400	TOP COVER(FOR OM-G)	1-D2
ZJ160500	M FRAME	7-A2
ZJ160600	SW BASE PLATE	3-B3
ZJ160700	FC PLATE	2-A1
DC079700	CAPACITOR	33uF, 6.3V
DC080500	CAPACITOR	0.1uF, 3.5V
DC197600	CAPACITOR	1.5uF, 6.3V
DC200700	CAPACITOR	6800pF, 25V
DC230700	CAPACITOR	0.047uF, 25V
DC271400	CAPACITOR	10uF, 6.3V
DC271900	CAPACITOR	4700pF, 25V
DC287300	CAPACITOR	0.022uF, 25V
DC287400	CAPACITOR	0.015uF, 25V
DC287500	CAPACITOR	0.033uF, 25V
DC287600	CAPACITOR	0.068uF, 25V
DC292800	CAPACITOR	0.01uF, 25V
DC292900	CAPACITOR	0.022uF, 25V
DR182100	CAPACITOR	1.8K ,1/8W
DR182200	CAPACITOR	180 ,1/8W
DR182400	CAPACITOR	180K ,1/8W
DR310900	CAPACITOR	150K ,1/8W
DR375900	CAPACITOR	10M ,1/8W
DR376000	CAPACITOR	5.1M ,1/8W
DR412500	CAPACITOR	4.7K ,1/8W
DR412600	CAPACITOR	5.1K ,1/8W
DR412700	CAPACITOR	150K ,1/8W
DR412800	CAPACITOR	91K ,1/8W
DR412900	CAPACITOR	150K ,1/16W
DR438000	JUMPER WIRE	
DR438100	JUMPER WIRE	
DR414200	V. RESISTOR	
DR414700	V. RESISTOR	
DS012500	LED	
DS030700	CDS	
DS044600	TRANSISTOR	2SA812
DS044700	TRANSISTOR	2SC1623
DS098900	ZENNER DIODE	RD6.2MB
DS102900	DIODE	ISS123
DW129600	F SHIELD 3	
DW141900	F SHIELD 4	
RBJ-A	LEAD WIRE (BLUE)	10m LONG
RBJ-B	LEAD WIRE (BLACK)	10m LONG
RBJ-D	LEAD WIRE (ORANGE)	10m LONG
RBJ-G	LEAD WIRE (GREEN)	10m LONG
RBJ-M	LEAD WIRE (PURPLE)	10m LONG
RBJ-R	LEAD WIRE (RED)	10m LONG
RBJ-W	LEAD WIRE (WHITE)	10m LONG
RBJ-Y	LEAD WIRE (YELLOW)	10m LONG
TKJ-B4	TUBE (BLACK)	1.0mm DIA,10m LONG
PUK1.4X1.4SN		SCREW
PUK1.4X1.5SN		SCREW
PUK1.4X1.6SN		SCREW
PUK1.4X 2 SN		SCREW
PUK1.4X2.5SN		SCREW
PUK1.4X305SN		SCREW
PUK1.4-507SN		SCREW
PUK1.4-605SN		SCREW
PUK1.4-605SB		SCREW
PUK1.4-615SN		SCREW
PUK1.7X1.5SN		SCREW
PUK1.7X2.5SN		SCREW
PUK1.7X 3 SN		SCREW
PUK1.7-308SN		SCREW
PUK1.7-410SB		SCREW
PUK1.7-410SG		SCREW
PUK1.7-512SN		SCREW
PUK 2 X1.8SN		SCREW
PUK 2 X 2 SN		SCREW
PUK 2 X 3 SN		SCREW
PUK 2 X3.5SN		SCREW
PUK 2 X4.5SN		SCREW
PUK 2 X4.5SG		SCREW
PUK 2 X 5 SH		SCREW
3PUK1.4X 3 BO		SCREW
3PUK1.4X 3 SG		SCREW
3PUK1.4X4.5BO		SCREW
3PUK1.7X3.5SN		SCREW
PUTB1.4X2.5SN		SCREW
PUTB 2 X 3 SN		SCREW
3PUTB1.7X 4 SB		SCREW
3PUTB1.7X4.5SN		SCREW
PSK1.4X4.5SN		SCREW
PSK 2 X2.5SN		SCREW
PSK 2 X 3 SN		SCREW

PARTS LIST

PARTS NO.	NAME OF PARTS	NOTE
PSTS1.7-416SN		SCREW
PSTW 2 X 3 SN		SCREW
B 1		BALL
B 2		BALL
NW1.5-425UO		WASHER
NW2.1-340PO		WASHER
ERø1.6		E RING



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG
OM 20 OM G	MDG	1/8

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

0982

NOTE WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY

B

INSPECTION STANDARDS

B. INSPECTION STANDARD

CONTENTS

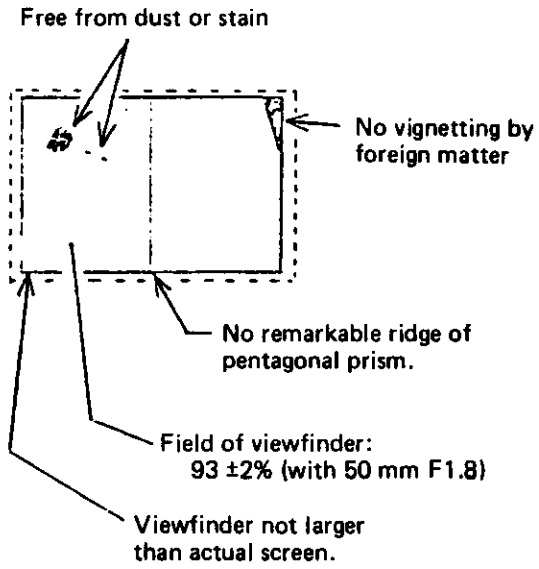
I. APPEARANCE AND FUNCTIONS

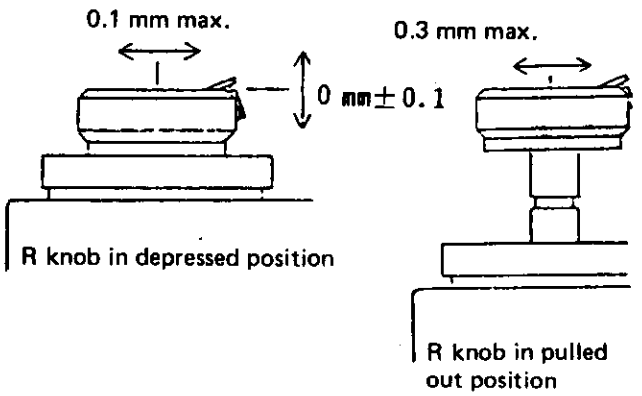
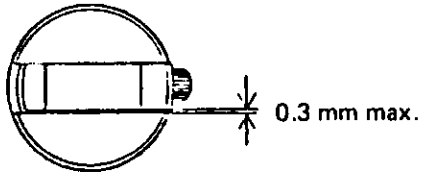
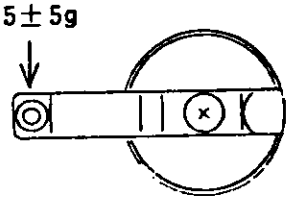
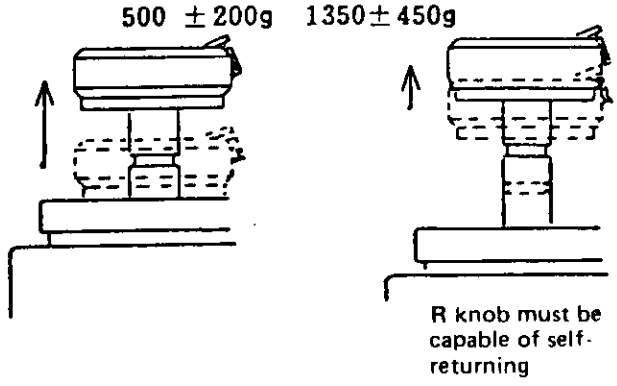
1. Viewfinder ..... B- 1
2. Indication within Viewfinder ..... B- 1
3. R Knob ..... B- 2
4. Winding Lever ..... B- 3
5. Film Release Button ..... B- 3
6. Film Counter ..... B- 4
7. Rear Cover ..... B- 5
8. Key Plate ..... B- 5
9. Pressure Plate ..... B- 5
10. Sprocket ..... B- 6
11. Spool ..... B- 6
12. Shutter Curtain ..... B- 7
13. Shutter Dial ..... B- 7
14. Rewinding Clutch ..... B- 7
15. Exposure Compensation Dial ..... B- 8
16. Mode Selector Dial ..... B- 9
17. Self Timer Lever ..... B- 9
18. Closing Lever B-10
19. Connecting Ring B-10
20. Movable Mirror B-10
21. B-Mount B-10
22. Release Lock B-10
23. Motor Drive B-10

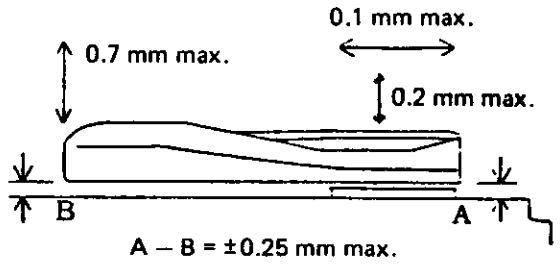
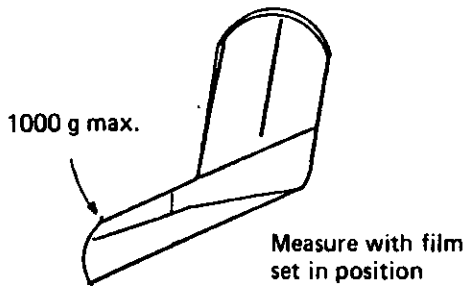
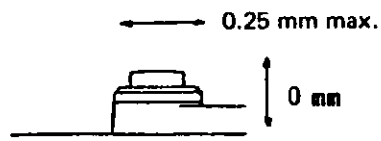
II. PERFORMANCE

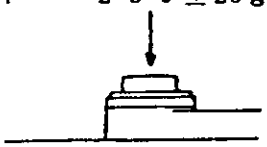
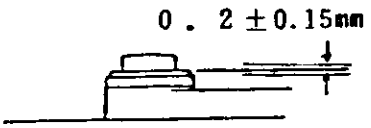
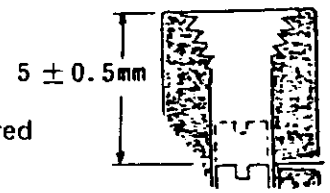
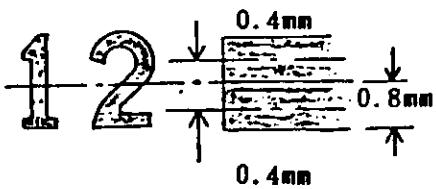
1. Mount Back Distance and Optical Path Length B-12
2. Spacing between Tunnels B-12
3. Vertical Deviation of Actual Screen Surface B-12
4. Position of Perforations B-12
5. Film Frame Interval B-12
6. Indicating Accuracy of Exposure Meter B-13
7. Manual Time B-14
8. Time Lag B-14
9. Contact Efficiency B-14
10. Contact Resistance B-14
11. Insulation Resistance B-14
12. Deviation of Manual Exposure Time Depending on Voltage Variation B-14
13. Automatic Exposure Accuracy B-15
14. ASA Switching Accuracy B-15
15. Release Lock Voltage B-15
16. Battery Check Voltage B-15
17. Exposure Deviation Due to Voltage Variation B-15
18. Current Consumption B-15
19. Leak Current B-15

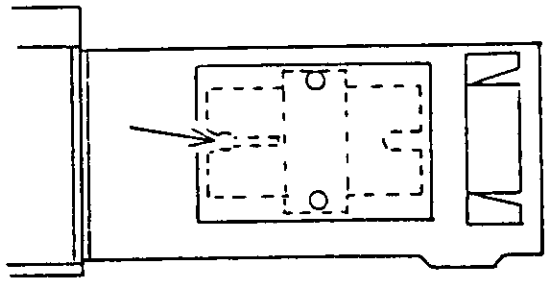
I. APPEARANCE AND FUNCTIONAL QUALITY

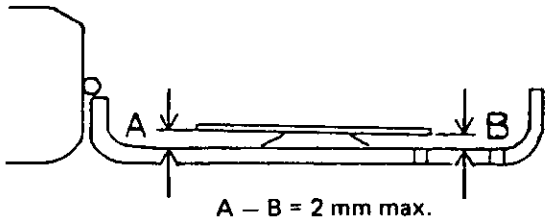
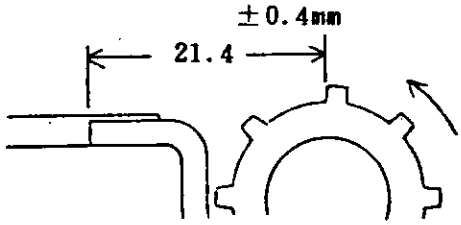
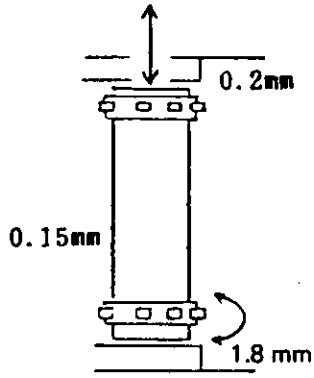
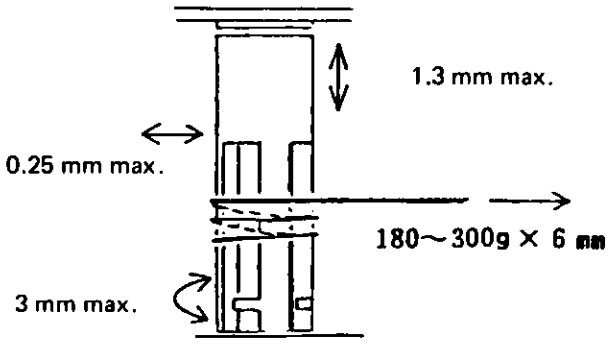
Major Check Point	Item to be Checked	Standard and Check Procedure
1. Viewfinder	1. Visual field	
	2. Diopter	−0.5 dioptry
2. Indication within viewfinder	1. Exposure indicating step	Exposure indication switched in steps of 0.7 EV or larger.
	2. Number of exposure indication	1 indication (2 indications allowable at switching point)
	3. Response speed	3 sec. max. for switching from dark to BV10. 7 sec. max. for switching from BV4 to BV1.
	4. Legibility of indication	No remarkable inclination of indicator relative to mask, vignetting or deviation. With T series strobe set in position, the strobe indicator LED comes on when the strobe is charged up (with the strobe power supply turned ON). The indicator LED flickers when the shutter is released and light intensity is adjusted.

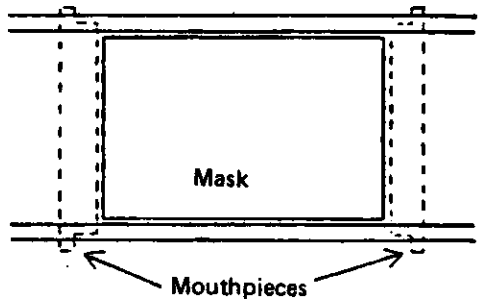
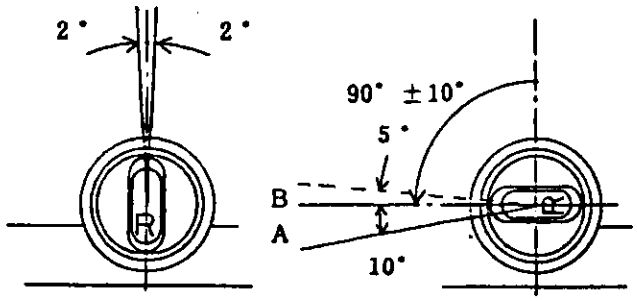
Major Check Point	Item to be Checked	Standard and Check Procedure
3. R Knob	1. Rattling of R knob	
	2. Gap between R knob and crank	
	3. Smoothness of rewinding motion	R knob must turn smooth in the rewinding direction with no remarkable rattling or creak whether or not film is set in position.
	4. Friction	R knob must be turned by a force of 15 ±5 g with no film set in position. 
	5. Force required for pulling out R knob	
	6. Spring force of R lever	30 ~ 40 g at initial stage of pulling out R knob.

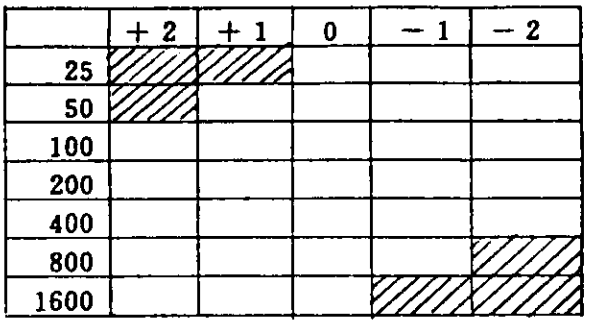
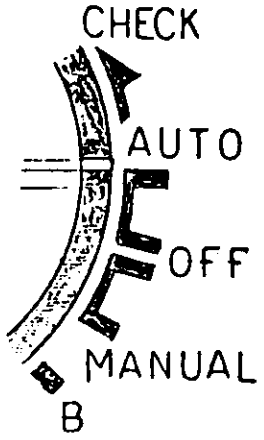
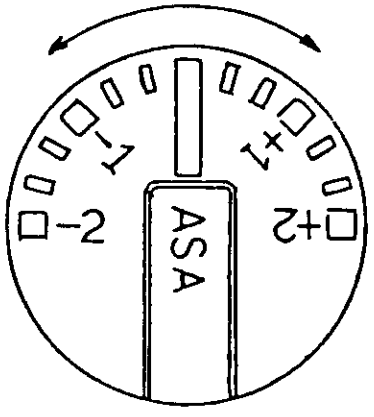
Major Check Point	Item to be Checked	Standard and Check Procedure
4. Winding lever	1. Rattling of winding lever	
	2. Operating reliability	A single stroke of the winding lever must cause film feeding to the next frame and charging of the shutter mirror without fail. Even when winding operation is performed quickly, the shutter must be set without fail.
	3. Smoothness of operation	Film must be wound smooth with no remarkable seizure, rattling, friction, creak or abnormal noise at the initial stage.
	4. Force required for turning	
	5. Reliability of winding in narrow steps	Film must be wound and stopped without fail even when the winding lever is turned in narrow steps.
	6. Force required for preparatory pulling out	40 ~ 90 g measured at the tip of the lever.
5. Releasing button	1. Rattling of button	
	2. Operating reliability	The shutter must be released without fail. The buttom must reset without fail even when it is depressed strongly and released gently.

Major Check Point	Item to be Checked	Standard and Check Procedure
(Releasing button)	3. Smoothness of operation	The button must operate smooth with no remarkable friction, creak, rattling or abnormal noise.
	4. Rotation of releasing button	The button must not rotate.
	5. Force required for releasing shutter	Force requireed for releasing the shutter. 2 8 0 ± 20 g  Force required with the indicator ON in the viewfinder: 40 ~ 50 g
	6. Releasing position	0.2 ±0.15 mm as measured from the button seat. 
	7. Depth of releasing core	The shutter should be released when the releasing core is set 7.5 ±0.5 mm as measured from the button top. 
	8. Lock position	The releasing button must be locked at the position shown below unless film is wound completely.
6. Film counter	1. Alignment between indices and counter character	1. Start character After the rear cover is opened and closed, the indices must be located within the height of character S. 2. Character "1" or even number  (Width of index)

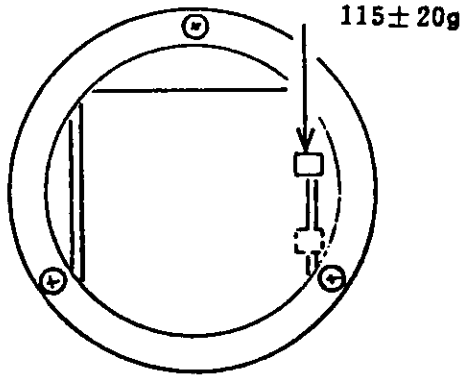
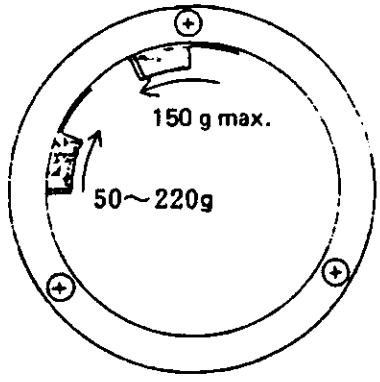
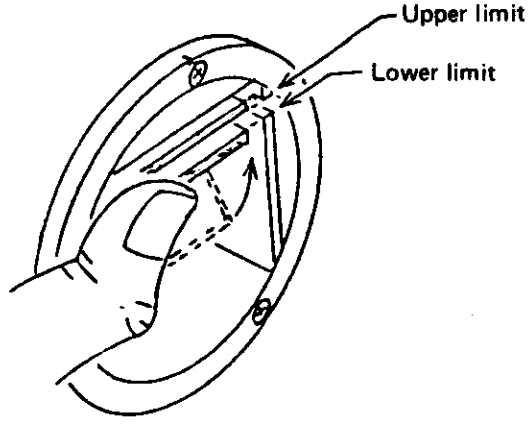
Major Check Point	Item to be Checked	Standard and Check Procedure
(Film counter)	2. Indication of "No. 1"	After opening and closing the rear cover with the shutter charged or discharged, "No. 1" must be indicated by feeding three film frames.
	3. Stop position	"E" should be visible when (37) is indicated.
	4. Resetting reliability	The film counter must be reset at "S" by opening the rear cover regardless of film position.
7. Rear cover	1. Bonding of leather	1. Gap between the leather and frame of rear cover. 0.2 mm max. 2. Convexity. Not remarkable 3. The leather is not peeled off.
	2. Back-forth rattling in locked condition	The key should be free from rattling whether or not patrone is set in position.
	3. Rattling of hinge	1. Horizontal rattling: The hinge must not be in frictional contact with end surface of the camera body. 2. Vertical rattling: 0.15 mm max.
	4. Smoothness of opening and closing motions	The rear cover must move smooth by its own weight with no seizure.
8. Key	1. Operating reliability	The rear cover must be opened without fail by pulling out the rewinding knob by two steps. The key must be reset without fail when the knob is released.
	2. Force required for closing rear cover	750 ±100 g
9. Pressure plate	1. Set direction	Fixed side (indicated by arrow) must be located on the hinge side. 

Major Check Point	Item to be Checked	Standard and Check Procedure
(Pressure plate)	2. Inclination	 A – B = 2 mm max.
10. Sprocket	1. Position of tooth	 Measure while urging the sprocket toward the mask.
	2. Rattling	 (as measured at the roots of teeth)
11. Spool	1. Rattling	
	2. Force required for turning	

Major Check Point	Item to be Checked	Standard and Check Procedure
12. Shutter curtain	1. Positions of curtain mouthpieces	 The mouthpieces must not visible within the range of the mask before or after film winding.
	2. Ununiformity, blurring and grazing of front curtain pattern	Not remarkable
	3. Condition of curtain	The curtain must be properly tensed with no inclination or slack.
13. Shutter dial	1. Clicking force	2 ±0.2 kg-cm
	2. Rattling	0.2 mm max. Thrusting or radial rattling: 0.15 mm max.
14. Rewinding clutch	1. Inclination of rewinding clutch	 A = Normal range B = Allowable range in rare case
	2. Setting reliability	The clutch must be set securely when it is inclined 90° or more and cannot be reset (even in the course of film winding).
	3. Operating reliability	The sprocket must rotate idly with the clutch set on the R side.
	4. Smoothness of operation	The clutch must be reset by the next winding operation.

Major Check Point	Item to be Checked	Standard and Check Procedure
15. Exposure correcting dial	1. Operating reliability of ASA dial	 The dial must provide the combinations except for those which are slashed in the above table.
	2. Deviation between characters and index	Within width of the index. 
	3. ASA switching reliability	Lifting force: 250 ±30 g
	4. Correction must be possible precisely and easily on both positive and negative sides.	Clicking force: 400 ± 100 g-cm 

Major Check Point	Item to be Checked	Standard and Check Procedure
16. Mode selector dial	1. Modes must be selectable precisely and easily.	The camera must operate in the selected mode.
	2. Switching force Force required for switching between MANUAL and B must be higher than that for switching between AUTO and CHECK.	OFF ⟷ AUTO ⟷ CHECK 400 ± 100 g-cm OFF ⟷ MANUAL ⟷ B 600 ± 100 g-cm (Difference: 200 ± 100 g-cm)
	3. Confirmation of indication start	When the mode selector dial is turned from OFF to AUTO or MANUAL, the indicator LED must light in the viewfinder.
	4. Reliability of battery check operation.	When the mode selector switch is set at CHECK, it must be possible to check the battery by sound and LED without fail.
	5. Operating time of indication limiter.	45 ~ 120 sec.
	6. Deviation of index from stop position.	The index must not deviate from the mode indication.
17. Self lever	1. Operating reliability of self timer.	Upon releasing the shutter, the self timer must operate with sound and LED indications without fail.
	2. Time set by self timer.	12 ± 3 sec.
	3. Brightness of LED.	Lit condition of the LED must be judged by the repairer standing with the sun at his back in an environment corresponding to BV15.
	4. Operating intervals of flicker for self timer.	ON: 250 ± 100 ms, OFF: 250 ± 100 ms, Total: 500 ± 150 ms
	5. Force required for turning lever.	3 kg-cm

Major Check Point	Item to be Checked	Standard and Check Procedure
18. Closing lever.	1. Force required for pushing	The lever must be pushed downward by a force of 115 ±20 g. 
19. Connecting ring	1. Operating force.	
20. Movable mirror	1. Smoothness of motion. 2. Shutter releasing position. 3. Bound of mirror at rise time.	The mirror must move smooth with no breathing or abnormal noise. 

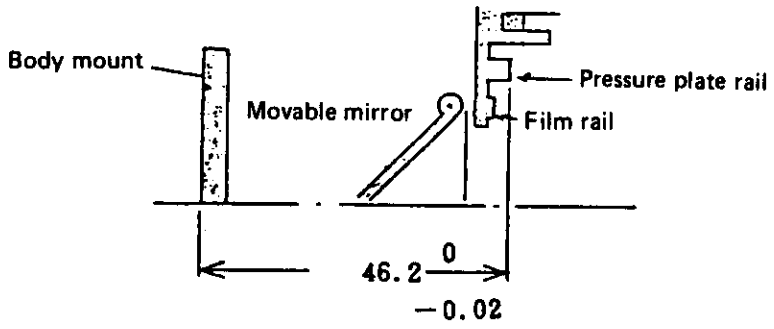
Major Check Point	Item to be Checked	Standard and Check Procedure
21. B mount	1. Seizure of mount.	None.
	2. Mounting and dismounting smoothness.	The standard lens must be mounted and dismounted smooth with no remarkable rattling, friction or creak.
	3. Torque required for mounting or dismounting standard lens.	4 ~ 7 kg-cm
22. Release lock.	1. Lock voltage.	2 ±0.05 V
	2. Reliability of lock operation.	At any position of the selector dial: Releasing must be possible within a voltage range of 3.2 V to 2 ±0.05 V (lock voltage). The lock must be operative without fail at voltage below 2 ±0.05 V (lock voltage).
23. Motor drive.	1. Contact.	Concavity from contact seat. 0 ±0.05 mm Concavity from lower plate of contact seat: 0.1 ±0.2 mm
	2. Operating reliability	Film must be wound without fail when the motor drive and winder are set in position.
	3. Continuity between contacts and insulation resistance.	1. 0.2 Ω max. in continuous condition. 2. At least 20 V, 50 MΩ in insulated condition (between contact and tripod screw)
	4. Force required for ZC424400 KL Plate	180 ±20 g
	5. Stroke of ZC424400 KL Plate	At least 2.5 mm
	6. Releasing position by ZC424400 KL Plate	2 ±0.4 mm

II. FUNCTIONAL PERFORMANCE QUALITY

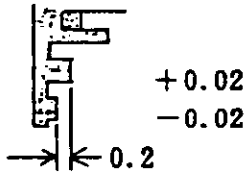
1. Mount back distance and optical path length . . . . . From pressure plate to film rail surface

   Optical path length of viewfinder:
   46.05 ±0.02 mm

   Mount back distance:
   46.20 +0, −0.02 mm

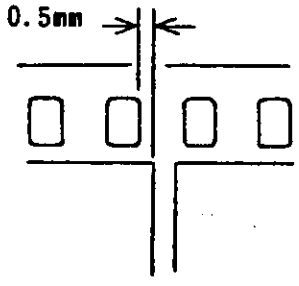


2. Spacing between tunnels . . . . . .

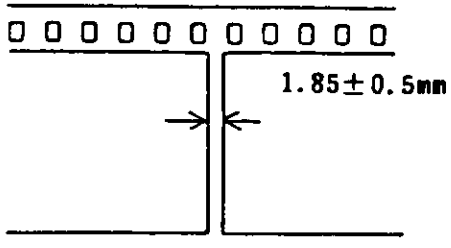


3. Vertical deviation of actual screen surface. . . . .The screen must not overlap with the perforation.

4. Position of perforation . . . . . .Actual screen must be at least 0.5 mm apart from the perforation.



5. Film frame spacing . . . . . .



6. Indicating accuracy of exposure meter

6-1 Measuring conditions

Voltage: 3.15 ±0.005 V
History of illumination: 20,000 lux, at least for 30 min.
K value of light source box: K = 1.3

6-2 Indicating accuracy

The specified LED or neighboring one must light in the following combination:

a. Luminance accuracy (ASA100 F5.6)

Luminance	BV4	BV6	BV8	BV10	BV12	BV14	BV15
LED	1	2	8	30	125	500	1000

b. Stop interlock accuracy (ASA100 BV10)

Aperture	F1.8	F2	F2.8	F4	F5.6	F8	F11	F16
LED	250	250	125	60	30	15	8	4

or (ASA100 BV12)

Aperture	F1.8	F2	F2.8	F4	F5.6	F8	F11	F16
LED	1000	1000	500	250	125	60	30	15

c. ASA switching accuracy (F5.6 BV10)

ASA	25	50	100	200	400	800	1600
LED	8	15	30	60	125	250	500

or (F5.6 BV12)

ASA	25	50	100	200	400	800	1600
LED	30	60	125	250	500	1000	1000

7. Manual time

Time	Central Value	Standard for Adjustment	Standard after Shipment
1/1000	0.98	0.58 ~ 1.56 sec.	± 0.6 EV
1/500	1.95	1.17 ~ 3.12 sec.	± 0.4 EV
1/250	3.91	2.34 ~ 5.47 sec.	± 0.4 EV
1/125	7.81	4.68 ~ 10.9 sec.	± 0.4 EV
1/60	15.6	14.8 ~ 22.6 sec.	+0.5 EV, −0 EV
1/30	31.2	18.7 ~ 43.6 sec.	± 0.4 EV
1/15	62.5	37.5 ~ 87.5 sec.	± 0.4 EV
1/8	125	75 ~ 175 sec.	± 0.4 EV
1/4	250	150 ~ 350 sec.	± 0.4 EV
1/2	500	300 ~ 700 sec.	± 0.4 EV
1	1000	600 ~ 1000 sec.	± 0.4 EV

- Curtain speed (between channels A and C of the shutter tester) . . . . . .11.5 ± 0.1 ms
- Time difference between neighboring shutter speed . . . . . .At least 0.7 V
- Hunting (variation during 10 shutter releasing operations) . . . . . .0.5 EV max.
- Exposure variation
  (deviation of exposure in channel A and C from that in channel B) . . . . . .30% (MANUAL 1/1000)
- Exposure accuracy for photographing with motor drive . . . . . .Within +0.5 EV

8. Time lag . . . . . .Synchoro switch must be turned ON within a time range from immediately after the 1st curtain is fully opened till 1.5 ms after the 2nd curtain starts closing.

9. Contact efficiency. . . . . .At least 40% at interval of 1 ms (shutter speed 1/60 sec. or lower)

10. Contact resistance . . . . . .Electrically continuous at 3 V

11. Insulation resistance . . . . . .At least 200 MΩ at 500 V

12. Deviation of manual exposure time depending on voltage variation . . . . . Within 0.3 EV within a range from 3.2 V to 2 ±0.05 V (lock voltage)

13. Automatic exposure accuracy
(ASA100, F5.6, new battery 3.15 ±0.01V x 2, with no illumination history) K = 1.3

Luminance	Central Value	Standard for Adjustment	Standard after Shipment
BV 15	+0.3	–0.2 ~ +1.2 EV	–0.45 ~ +1.3 EV
BV 14	+0.3	–0.2 ~ +0.8 EV	–0.3 ~ +0.9 EV
BV 12	+0.1	–0.4 ~ +0.6 EV	–0.5 ~ +0.7 EV
BV 11	0	–0.5 ~ +0.5 EV	–0.6 ~ +0.6 EV
BV 10	0	–0.5 ~ +0.5 EV	–0.6 ~ +0.6 EV
BV 8	0	–0.5 ~ +0.5 EV	–0.6 ~ +0.6 EV
BV 6	0	–0.5 ~ +0.5 EV	–0.6 ~ +0.6 EV

- Exposure deviation relative to central value ..... ± 0.2 EV
- Maximum exposure time in dark ..... At least 2 sec.
- Exposure deviation for photographing with motor drive ..... +0.5 EV max.

14. ASA switching accuracy
(All values listed below are specified as deviations from those actually measured at BV8, F5.6, ASA100)

ASA Switching	Standard for Adjustment	Standard after Shipment
25 ~ 320	–0.35 ~ +0.35 EV	± 0.4 EV
400	–0.35 ~ +0.35 EV	± 0.5 EV
500 ~ 800	–0.6 ~ +0.6 EV	± 0.7 EV
1600	–0.9 ~ +0.9 EV	± 1.0 EV

15. Release lock voltage ..... 1.95 ~ 2.10 V

16. Battery check voltage ..... Check indicator must stop within a range from 1.95 V to 2.2 V.

17. Exposure deviation depending on voltage variation ..... Within 0.3 EV within a range from 3.2 V to 2.05 V in both the AUTO and MANUAL modes.

18. Current consumption ..... 8 mA with combination MG turned ON
6 mA with shutter MG turned ON
6.7 ± 1.3 mA for self timer LED
0.9 mA for each indicator LED

19. Leak current ..... Less than 1 μA with model selector knob set at OFF

C

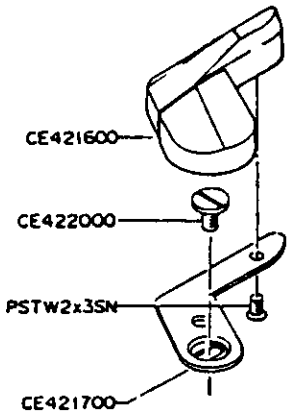
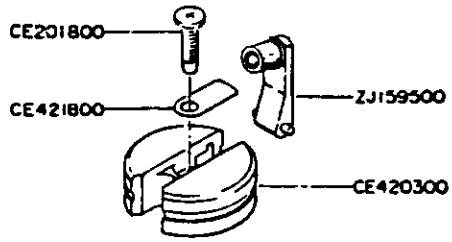
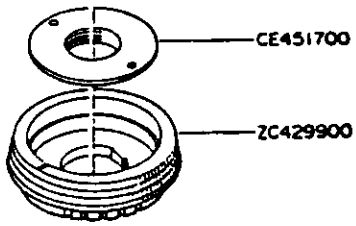
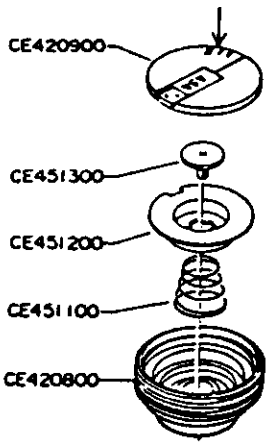
DISASSEMBLING PROCEDURE

C. DISASSEMBLING PROCEDURES

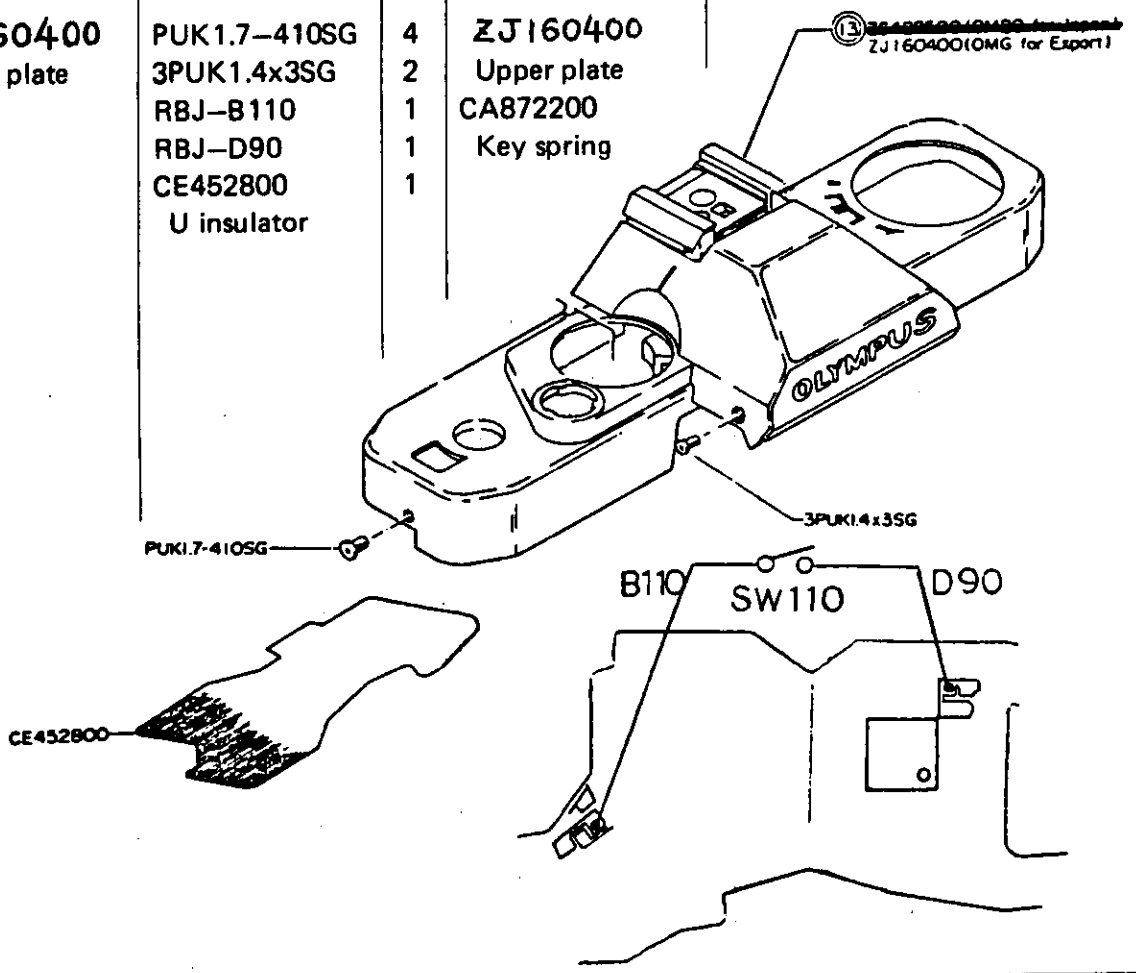
CONTENTS

1. Detachment of Top Cover. . . . . C- 1
2. Removal of Flexible Printed Circuit . . . . . C- 2
3. Dismounting of Shutter Unit. . . . . C- 5
4. Disassembly of Shutter Mechanism . . . . . C- 8
5. Disassembly of ZC427500 L Base Plate Unit. C-10
6. Removal of ZC428100 F.W. Unit C-11
7. Disassembly of ZC428100 F.W. Unit C-12
8. Removal of ZJ158100 Side Plate L and ZC426900 Side Plate R. C-14

1. Detachment of Top Cover

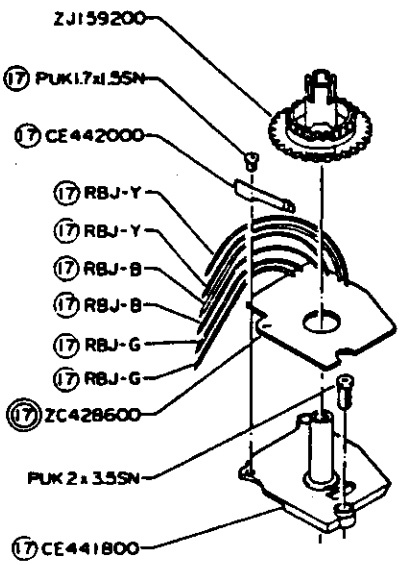
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. CE421700 Grip plate	PSTW2x3SN CE422000	1 1	CE421600 Grip CE421700 Grip plate	
2. CE420300 R knob	CE201800	1	CE420300 R knob ZJ159500 R lever CE421800 R lever spring	Use KCCE2119 Tool 
3. ZC429900 R change mecha.	CE451700	1	ZC429900 R change mecha.	
4. CE420800 A knob	CE420900 CE451300	1 1	CE420800 A knob CE451100 A knob spring CE451200 ASA plate	
Forcibly lift up CE420900 AS cover with screwdriver No. 1 inserted into the portion indicated by arrow.				

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
5. ZJ160400 Front plate	PUK1.7–410SG 3PUK1.4x3SG RBJ–B110 RBJ–D90 CE452800 U insulator	4 2 1 1 1	ZJ160400 Upper plate CA872200 Key spring	



2. Removal of Flexible Printed Circuit

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. ZC428600 ASA circuit	PUK2x3.5SN RBJ–B30 RBJ–G30 RBJ–V30	2 2 2 2	ZC428600 ASA circuit	
ZJ159200, CE442000 and CE441800 are removed as an ass'y.				

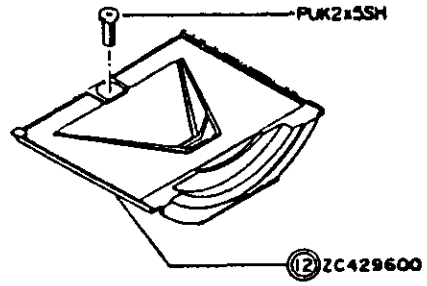


Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
2. ZC429600 Covering plate	PUK2x5SH	1	ZC429600 Covering plate	

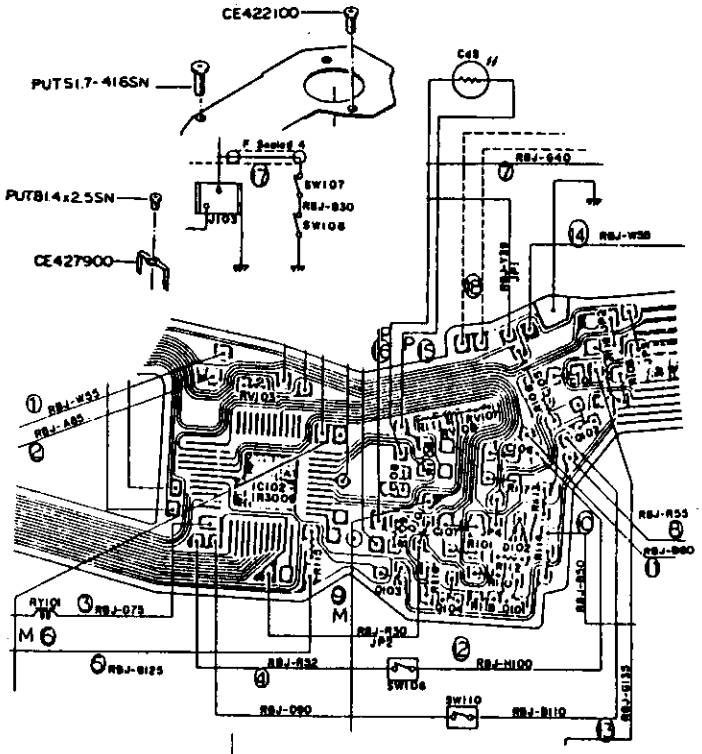
"Preparations for Removing PUK2x5SH Screw"

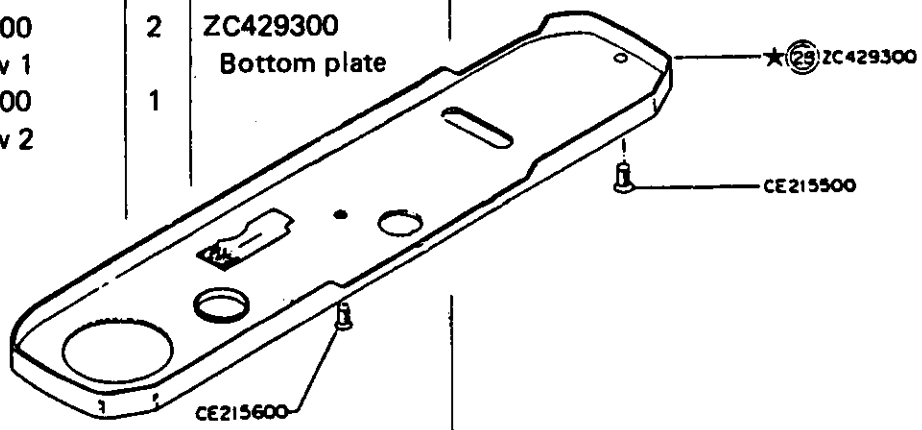
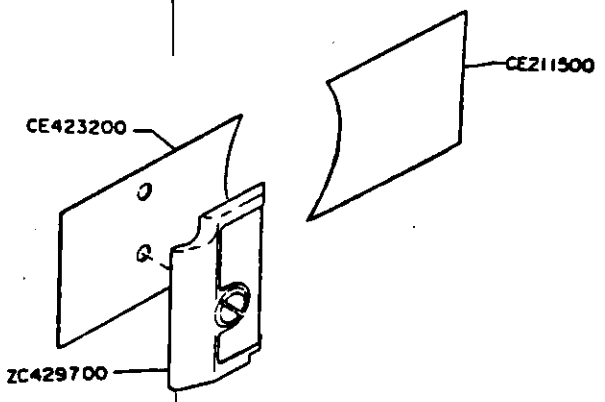
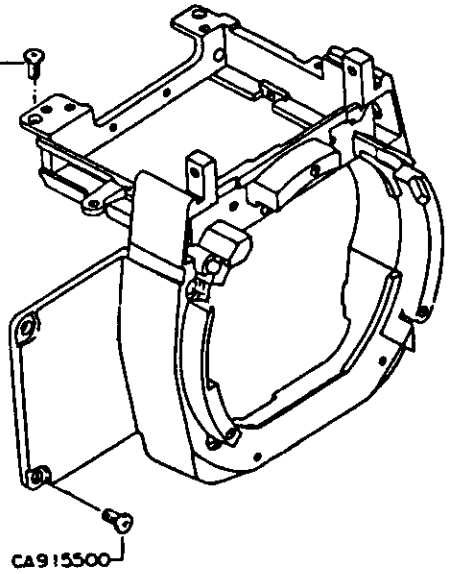
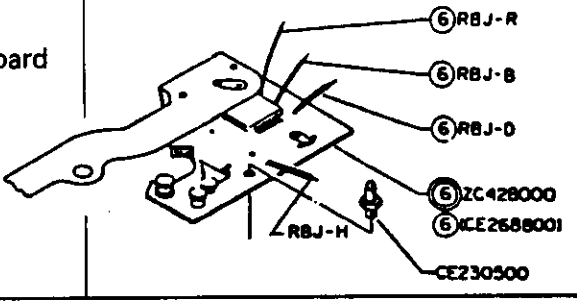
- ○ When ZC429900 R change mecha is assembled in position, open the shutter with the bulb (use the cable release).
- ○ When ZC429900 R change mecha is dismounted, open the shutter by removing ZC428600 ASA printed circuit or connecting JP1 (RBJ–Y39) to ground and depressing the release button.

CAUTION: Take care not to touch the curtain, otherwise the curtain string may be detached, allowing the curtain to be inclined.

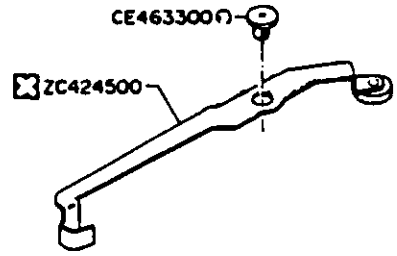
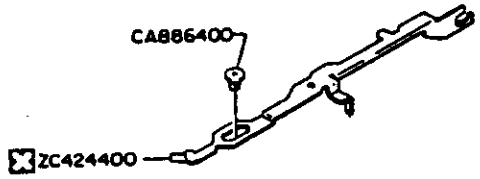
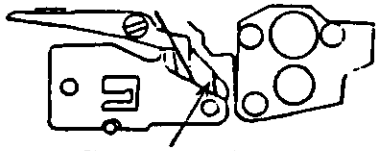
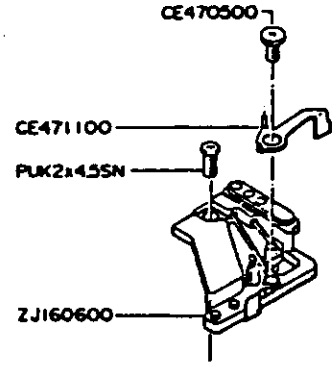
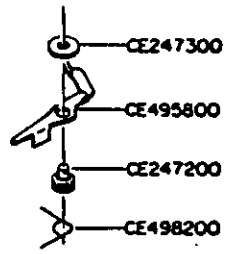
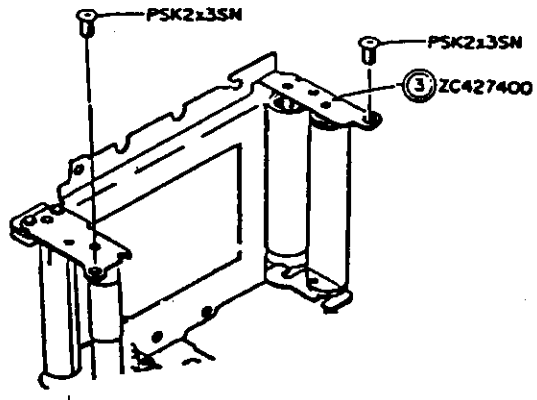


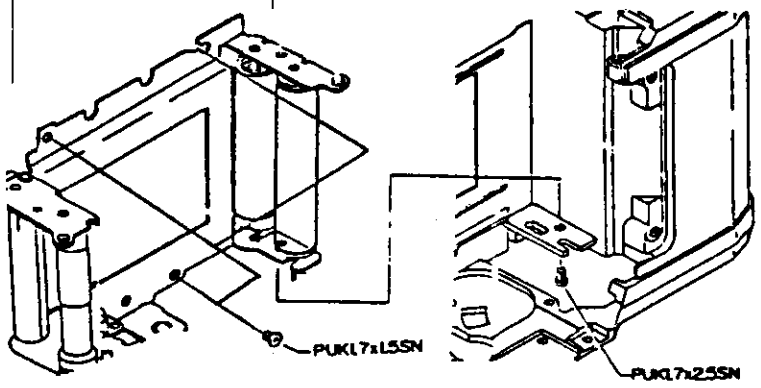
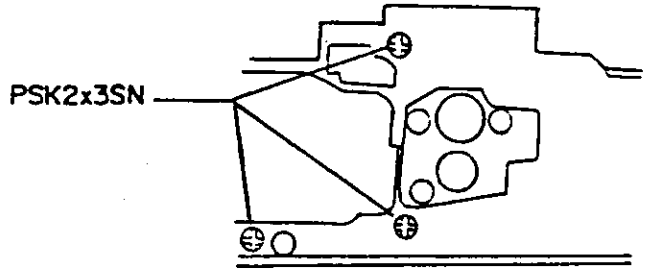
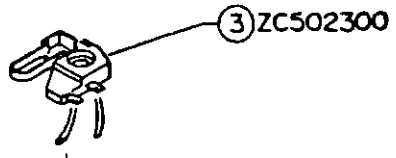
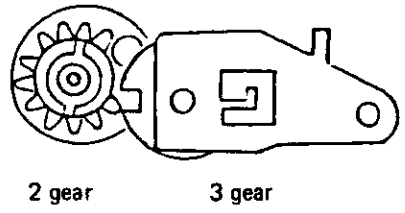
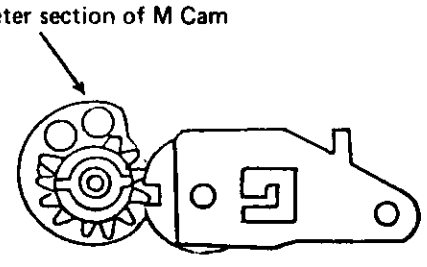
3. Flexible printed circuit	CE422100 R circuit screw	2	
	PUTS1.7–416SN	1	
	PUTB1.4x2.5SN	1	
	RBJ–W55	1	
	RBJ–A85	1	
	RBJ–D75	1	
	RBJ–R52	1	
	RBJ–B125	1	
	RBJ–M	1	
	RBJ–G40	1	
	RBJ–R55	1	
	RBJ–M	1	
	RBJ–B50	1	
	RBJ–B110	1	
	RBJ–B60	1	
	RBJ–G135	1	
	RBJ–W55	1	
	RBJ–P	1	
	RBJ–P	1	
	RBJ-shield white	1	
	RBJ-shield blue	2	

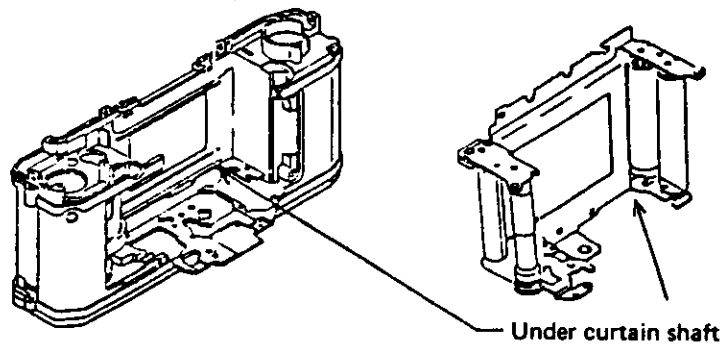
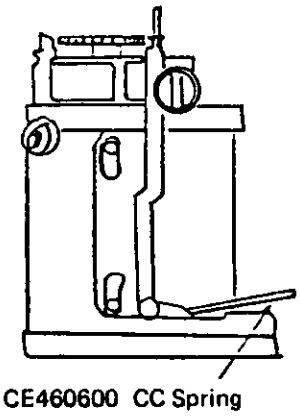
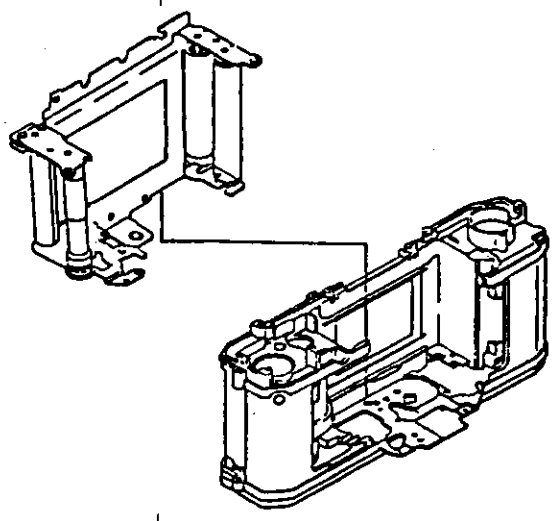


Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
4. ZC429300 Bottom plate	CE215500 L screw 1 CE215600 L screw 2	2 1	ZC429300 Bottom plate	
5. CE211500 Front side leather CE423200 Leather R	ZC429700 Grip CE211500 Front side leather CE423200 Leather R	1 1 1		
6. Front casting	CA915500 Front screw 3PUK1.7x3.5SN	4 1	3PUK1.7x3.5SN Front casting ass'y	
7. ZC428000 M circuit board	CE230500 JM shaft JBJ–R45 JBJ–B60 JBJ–D45 JBJ–H45	1 1 1 1 1	ZC428000 M circuit board	

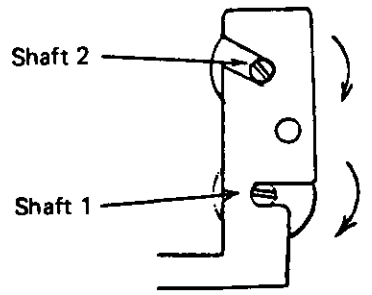
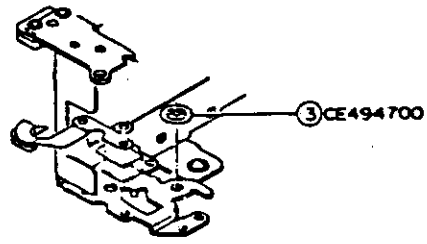
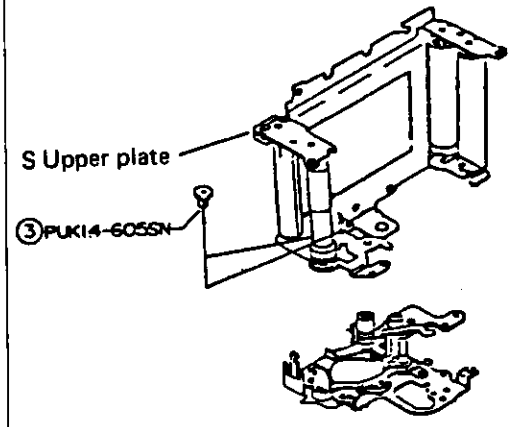
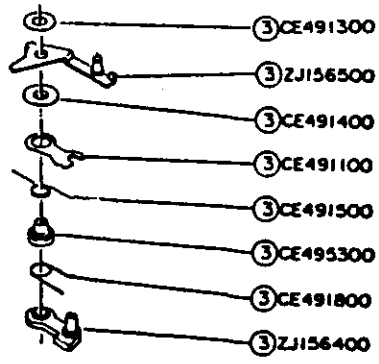
3. Dismounting of Shutter Unit

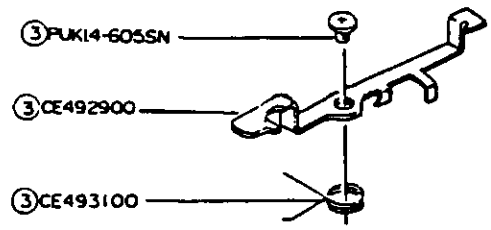
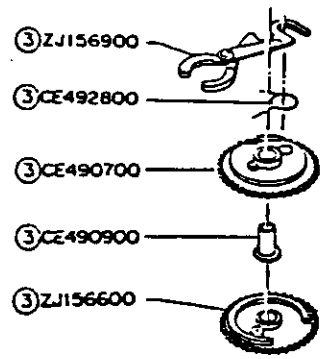
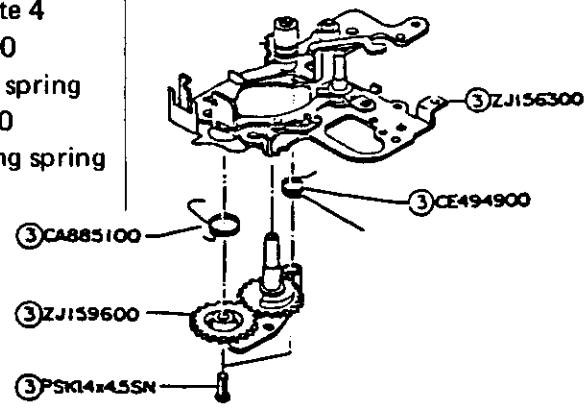
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. ZC424500 KM lever	CE463300 M lever shaft	1	ZC424500 KM lever	
NOTE: The shutter should be set in charged condition. CE463300 M Lever shaft is of left-hand thread type.				
2. ZC424400 KL plate	CA886400 KL shaft	1	ZC424400 KL plate	
Hook the shorter end (in contact with the camera body) of CE494900 Returning spring with the end of the S base plate.  Shorter end of returning spring				
3. ZJ160600 SW base plate	PUK2x2.5SN CE470500 SW shaft	1 1	ZJ160600 SW base plate CE471100 SW lever	
4. CE495800 KS lever	CE498200 KS spring CE247200 KS shaft	1 1	CE495800 KS lever CE247300 KS washer	
5-1 Shutter unit	PUK2x3SN	2		

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
5-2 Shutter unit	PUK1.7x1.5SN PUK1.7x2.5SN	3 1		
5-3 Shutter unit	PSK2x3SN	3		
6. XR switch	DW41900 RBJ–B30	1 1		
7. Separate the shutter unit from the camera body. (1) Check the shutter to see if it is kept in charged condition. The film must be in the wound condition. (2) Push the shutter unit about 1 mm upward to disengage the 2 gear from the 3 gear.				
(3) Release (CA882100) Checking lever. With the 2 gear disengaged from the 3 gear, rotate the fomer 1/4 turn. (Locate the maximum diameter section of the M Cam of the 2 gear unit under (CA882100) Checking lever.				

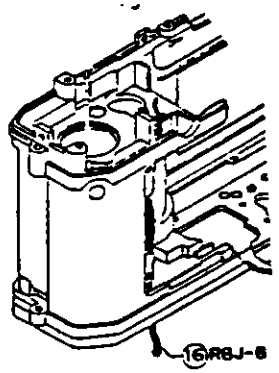
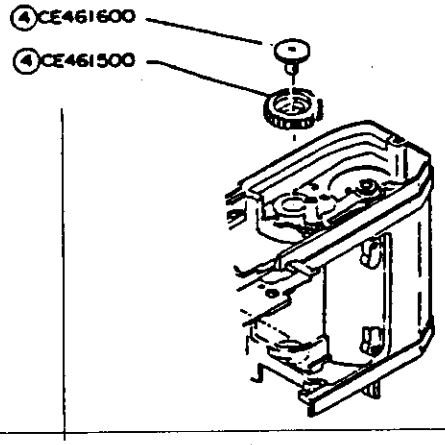
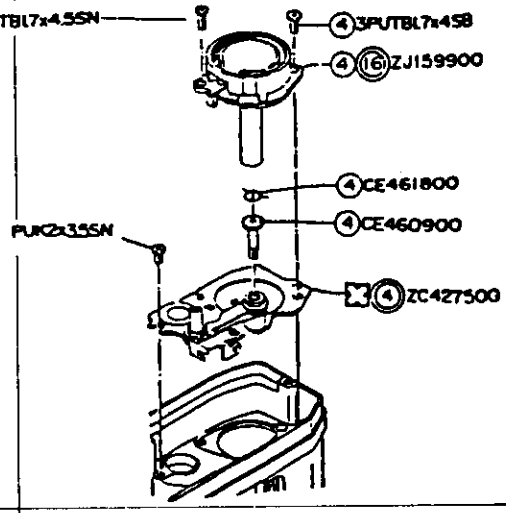
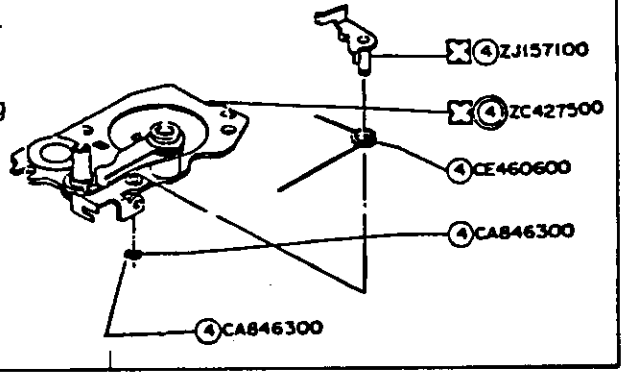
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
(4) While pushing the shutter unit upward, remove the S upper plate (located under the curtain shaft) from the camera body.				
(5) Remove CE460600 CC Spring engaged with (CE242300) Shaft BM from the shutter unit.				
(6) Separate the shutter unit by lifting it over the camera body while swinging it rightward, leftward, upward and downward.				

4. Disassembly of Shutter Mechanism

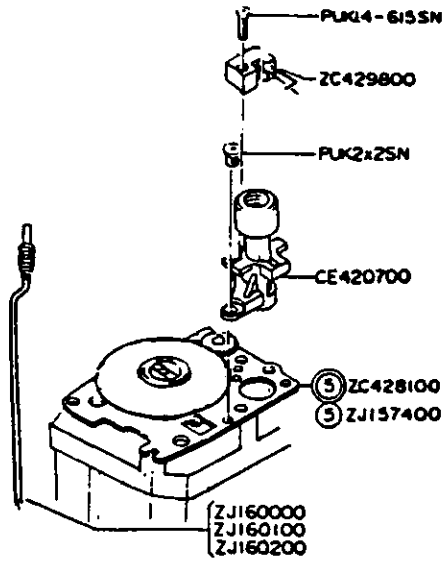
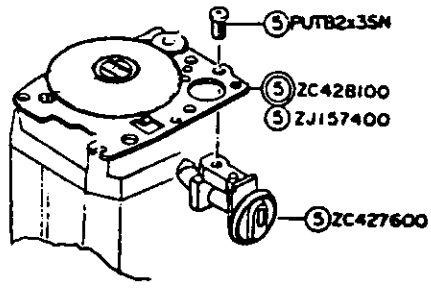
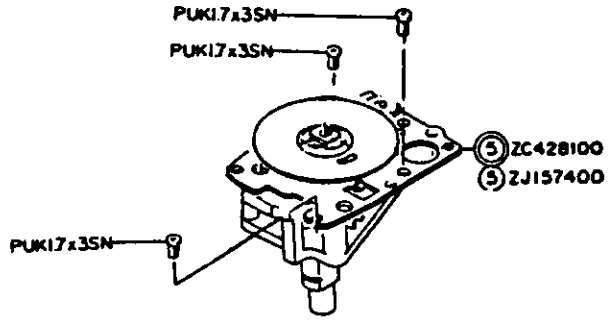
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. Curtain Set curtain torque at 0. For the 1st curtain, rotate the shaft 1 about 6.5 turns clockwise. For the 2nd curtain, rotate the shaft 2 about 3.5 turns clockwise.				
2. CE494700 S Pin 15	CE494700 S Pin 15 Remove the S Pin 15 by forcibly raise its outer circumference with screwdriver No. 2.	1		
3. S Upper plate	PUK1.4–605SN	2	S Upper plate ZJ156100 1st curtain ZJ156000 2nd curtain	
4. ZJ156500 A Claw A CE491100 A Claw B			CE491300 A Washer ZJ156500 A Claw A CE491400 A Collar CE491100 A Claw B CE491500 A Spring A CE495300 A Shaft CE491800 A Claw B ZJ156400 K Lever	

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
5. CE492900 M Lever	PUK1.4–605SN	1	CE492900 M Lever CE493100 M Lever spring	
6. ZJ156900 B Lever	ZJ156900 B Lever CE492800 B Spring	1 1	CE490700 Gear BM CE490900 Gear shaft B ZJ156600 Gear AM	
7. ZJ159600 Base plate 4	PSK1.4–4.5SN	2	ZJ159600 Base plate 4 CA885100 Gear #3 spring CE494900 Returning spring	

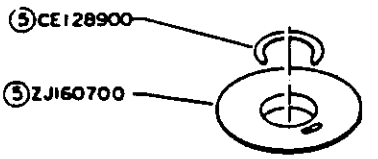
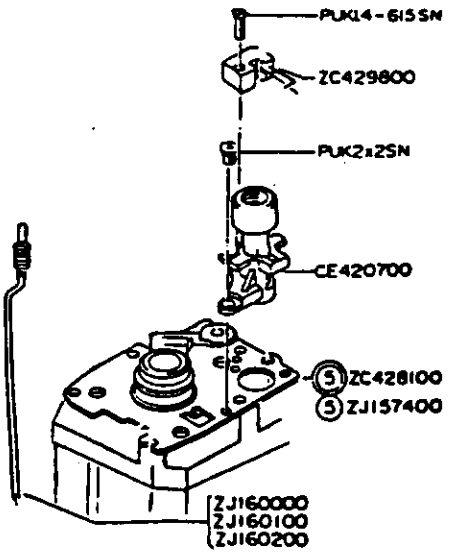
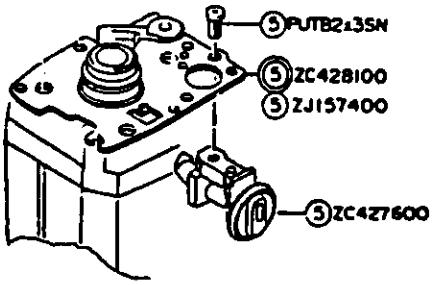
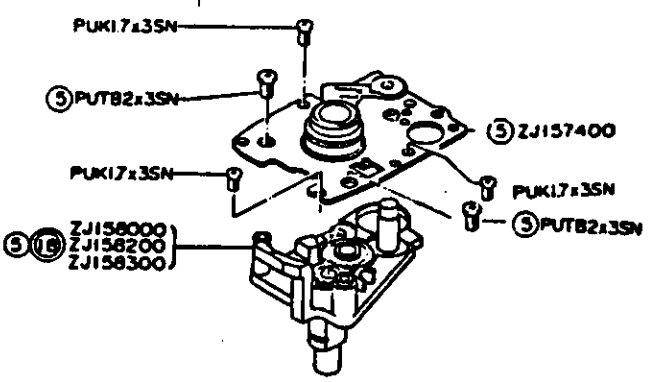
5. Disassembly of ZC427500 L Base Plate Unit

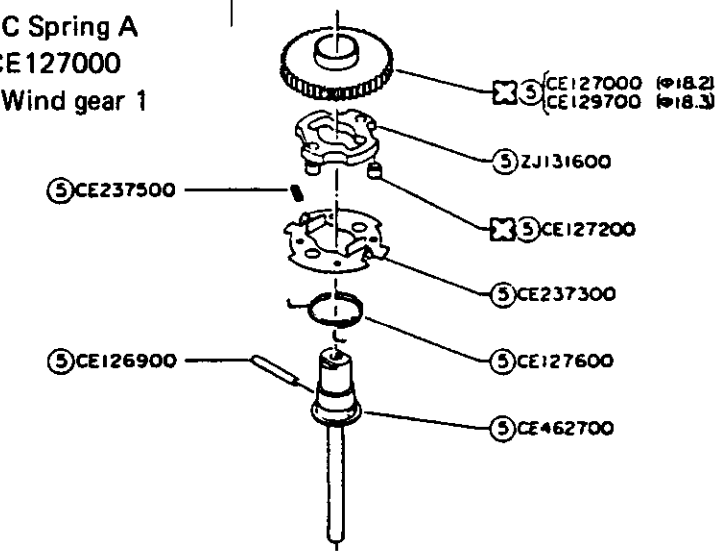
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. ZJ159900 B Case	Lead wire Desolder the lead wire from the camera body.	1		
2. CE461500 Gear #1	CE461600 Gear #1 spring	1	CE461500 Gear #1	
3. ZC427500 L Base plate unit	3PUT1.7x4SB 3PUTB1.7x4.5SN PUK2x3.5SN CE460900 M Holder screw	1 1 1 1	ZC427500 L Base plate unit ZJ159900 B Case CE461800 Lock spring	
4. ZJ157100 Cam lever	E Washer	1	ZJ157100 Cam lever CE460600 CC Spring	

6. Removal of ZC428100 F.W. Unit

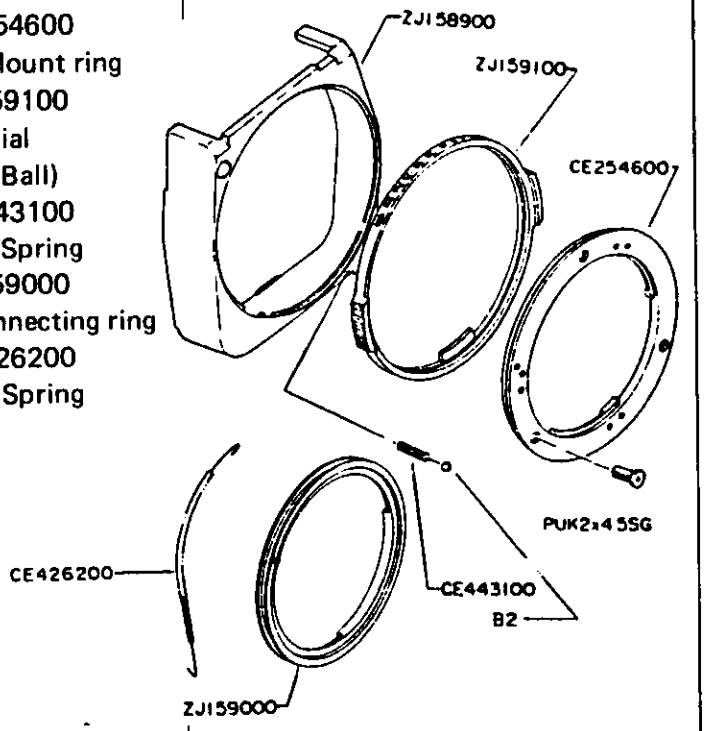
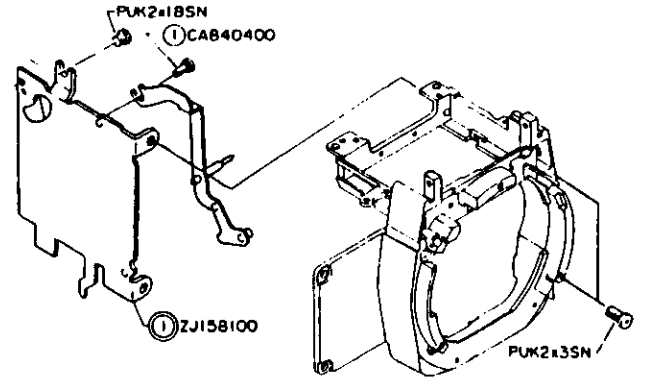
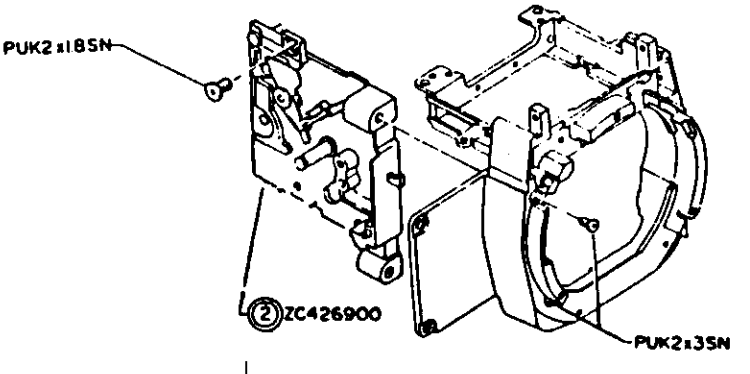
Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. CE420700 Button guide	PUK2x2SN PUK1.4–615SN	1 1	ZC429800 R Switch CE420700 Button guide ZJ160000 Release shaft (M)	
2. ZC427600 K Knob	PUTB2x3SN	1	ZC427600 K Knob	
3. ZC428100 FW Unit	PUK1.7x3SN	3	ZC428100 FW Unit	

7. Disassembly of ZC428100 FW Unit

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. ZJ160700 FC Plate	CE128900 FC Stopper	1	ZJ160700 FC Plate	
2. CE420700 Button guide	PUK2x2SN PUK1.4–615SN	1	ZC429800 R Switch CE420700 Button guide ZJ160000 Release shaft (M)	
3. ZC427600 K Konb	PUTB2x3SN	1	ZC427600 K Knob	
4. ZJ157400 U Base plate	PUK1.7x3SN PUTB2x3SN	3 2	ZJ157400 U Base plate	

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
5. CE462700 FW Shaft	CE127600 Returning spring CE237300 Side spring 2	1 1	ZJ131600 FW Claw CE127200 Collar CE237500 C Spring A CE127000 Wind gear 1	

8. Removal of Side Plate LR

Main Part	Part to be Removed	Q'ty	Removable Part	Remarks
1. CE254600 B Mount ring	PUK2x4.5SG ZJ158900 Front cover	3 1	CE254600 B Mount ring ZJ159100 S Dial B2 (Ball) CE443100 SD Spring ZJ159000 Connecting ring CE426200 CL Spring	
2. ZJ158100 Side plate L	PUK2x3SN PUK2x1.8SN CA840400 M Lever screw RBJ–H40	2 1 1 1	ZJ158100 Side plate L	
3. ZC426900 Side plate R	PUK2x3SN PUK2x1.8SN	2 1	ZC426900 Side plate R	

D

REASSEMBLING
AND
ADJUSTNG PROCEDURES

D. REASSEMBLING AND ADJUSTING PROCEDURES

CONTENTS

I. SHUTTER MECHANISM
1. Reassembly and Adjustment of Shutter Mechanism ..... D- 1
2. Mounting of Shutter Unit ..... D- 4

II. F.W. UNIT
1. Reassembly and Adjustment of ZC427500 L Base Plate Unit ..... D- 5
2. Reassembly of ZC428100 F.W. Unit ..... D- 6
3. Adjustment of ZJ160700 F.C. Plate ..... D- 7

III. FRONT CASTING UNIT
1. Check and Adjustment of ZJ158100 Side Plate R. ..... D- 8
2. Check and Adjustment of ZC426900 Side Plate L ..... D- 8
3. Focusing of Viewfinder ..... D- 9

IV. FORMING OF LEAD WIRES AND FLEXIBLE PRINTED CIRCUIT
1. Forming of Flexible Printed Circuit D-10
2. Forming of Lead Wires D-10

V. DOCKING OF FRONT CASTING UNIT D-11

VI. ADJUSTMENT OF EXPOSURE CONTROL CIRCUIT
1. Adjustment of Lock Voltage D-12
2. Adjustment of Offset D-13
3. Adjustment of Manual Time D-13
4. EE Adjustment D-14
5. Check of Automatic Switching at X Time D-15
6. Checks and Adjustment of Self Time D-15

VII. MATCHING OF SHUTTER TIME INDICATING LED IN VIEWFINDER
1. Gamma Adjustment D-15
2. Adjustment of Lighting Level D-15
3. Check of Indication Accuracy D-16
4. Checks of Lighting Conditions and Positions of LEDs. D-16

VIII. CHECK OF INDICATING LED IN VIEWFINDER
1. Indication of Strobe Charging D-16
2. Indication of Shutter Time D-16
3. Indication of Manual Mode D-16
4. Indication of "+" and "—" Exposure Corrections D-16

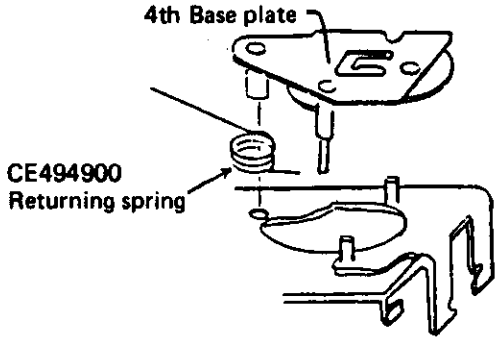
IX. REASSEMBLY AND ADJUSTMENT OF UPPER PLATE UNIT
1. Soldering of Lead Wires. D-18
2. Reassembly of Upper Plate D-19
3. Reassembly of CE420800 A Knob D-19
4. Reassembly of ZC429900 R. Change Mecha. D-20

I. SHUTTER MECHANISM

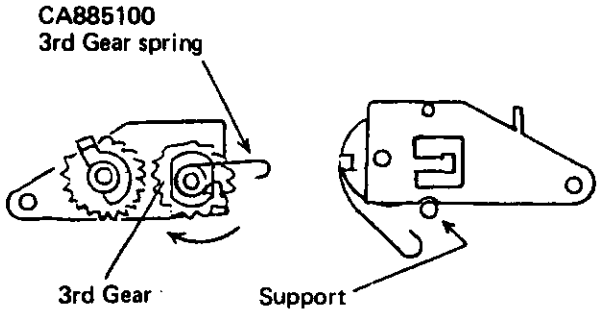
1. Reassembly and Adjustment of Shutter Unit

(1) Reassembly of 4th base plate

- O Place CE494900 Returning spring on ZJ-156300 S Base plate with the shorter end set on the side of the base plate.

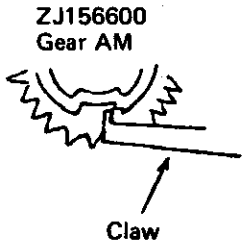


- O Turn the 3rd Gear clockwise as far as it can go, and fit the shorter end of the gear into the right groove of CA885100 Gear #3 spring.
- O Turn 4 base plate inside out and reassemble it with S base plate (by using two PSK1.4x 4.5SN Screws) to prevent CA885100 3rd Gear Spring.
- O Hook CA885100 Gear #3 spring with the support and check the 3rd gear for its operation.



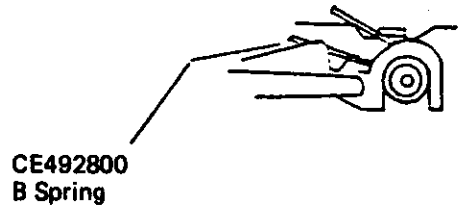
(2) Drop ZJ156600 Gear AM to the gear shaft A.

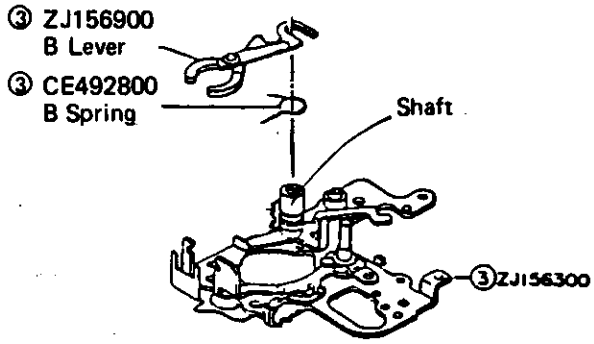
- O Adjust position of ZJ156600 Gear AM until the claw springs into the hook.



(3) Reassemble ZJ156900 B Lever

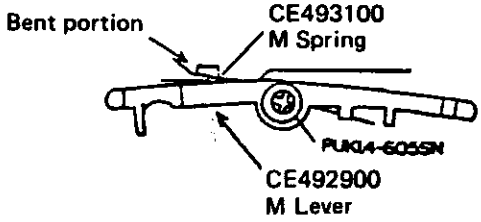
- O With the longer end of CE492800 B Spring set upside, fit it over the shaft.
- O Fit the U-shaped portion of the B lever into the 2nd highest groove and engage it with the B spring.





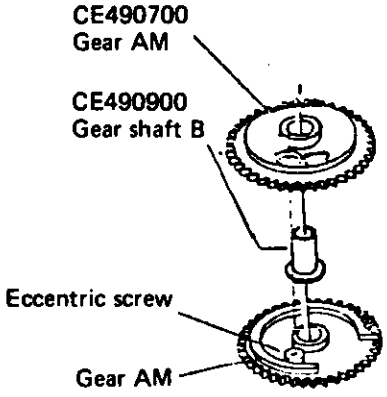
(4) Reassemble CE492900 M Lever

- O With the bent portion of CE493100 M Lever spring set downside, insert it into the shaft.
- O Insert the M Lever into the shaft and tighten PUK1.4–605SN Screw.
- O Engage the M Spring with the protrusion.



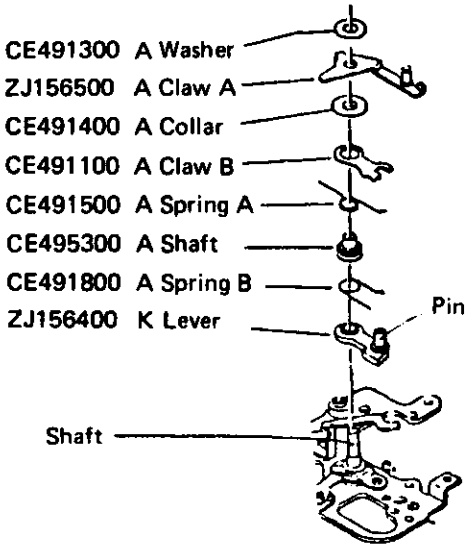
(5) Reassemble CE490700 Gear BM.

- O Fit CE490900 Gear shaft B into gear shaft A.
- O With the protrusion of CE490700 Gear shaft B set downside, drop it into CE490900 Gear shaft B. (It must be so positioned that the eccentric screw head of the gear AM must be visible through the hole of the gear AM.)



(6) Reassemble ZJ156500 A Claw A

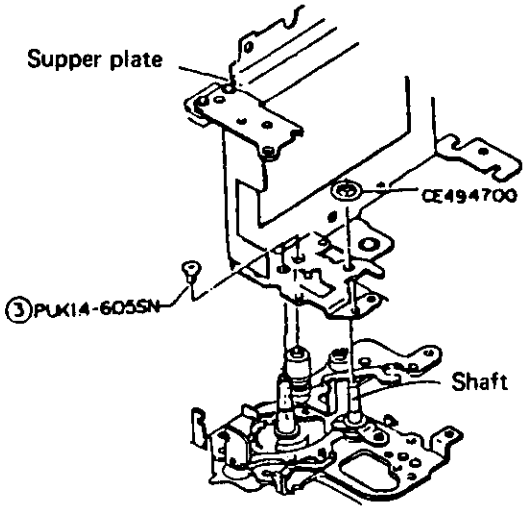
- O Fit ZJ156400 K Lever over the shaft.
- O Insert the longer end of CE491800 A Spring B into the pin slot of ZJ156400 K Lever.
- O With the straight portion of CE491500 A Spring A set downside, insert it into CE495300 A Shaft and fit it over the shaft. (The straight portion must be located on the right side of the claw.)
- O Fit CE491100 A Claw B over the shaft so that the pin is fitted into the elongated slot.
- O Fit CE491400 A Collar over the shaft.
- O Fit ZJ156500 A Claw A over the shaft.
- O With the convex surface of CE491300 A Washer set downside, fit it over the shaft.

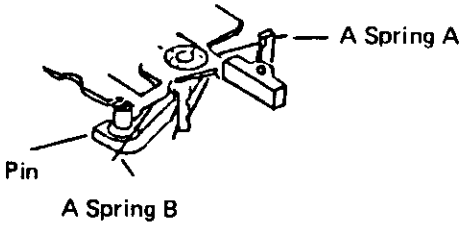


(7) Reassemble the S upper plate.

- O Set the S upper plate in position in alignment with the shaft of the S base plate. (Note that the A claw is kept unstable.)
- O Tighten two PUK1.4–605SN Screws.
- O Hook the bent portion and straight portion of CE491500 A Spring A in the spring hole of the S upper plate and the pin groove respectively.
- O Hook CE491800 A Spring B in the S upper plate.
- O Forcibly fit CE494700 SPN 15 over the shaft.

NOTE:
Check the A claw A, A claw B, etc. for their operations. They must be returned smoothly under the spring forces.



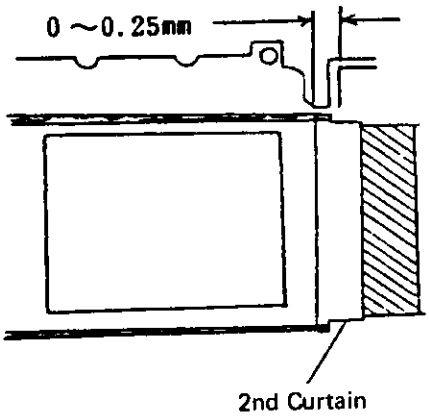


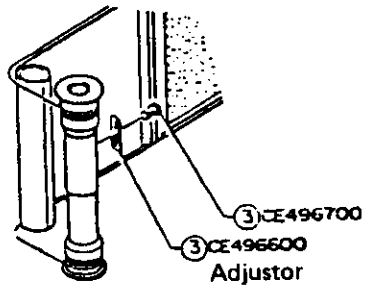
(8) Positioning of 2nd curtain

- O Rotate the A shaft (for applying torque to the 2nd curtain) 3.5 turns counterclockwise.
- O After disengaging CE242300 Drum shaft BM from the gear BM, roll up the curtain until it is invisible through the mask. Then, engage the drum shaft BM with the gear BM.
- O Confirm that the gear BM is properly engaged with ZJ156500 A claw A (with the magnet plate kept in contact with the magnet).

○ Properly position the mask by adjusting the gear engagement until the right end of the 2nd curtain metal fitting is located at 0 ~ 0.25 mm as measured from the bent portion of the S upper plate toward the mask. (For fine adjustment, adjust position of CE496600 Adjustor.)

○ Set CE495900 U Stopper 1 and ZJ156800 L Guide in position.



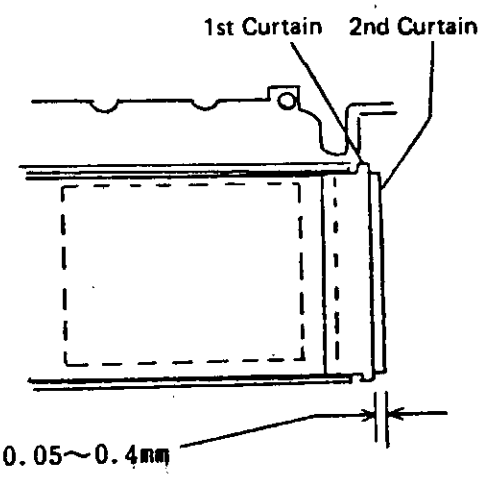


(9) Positioning of 1st curtain

○ Rotate the 1st shaft (applying torque to the 1st curtain) 6.5 turns counterclockwise.

○ After disengaging CE242000 Drum shaft AM from the gear AM, roll up the 1st curtain until the curtain metal fitting is overlapped with the 2nd curtain metal fitting. Then, engage the gear AM with the drum shaft AM.

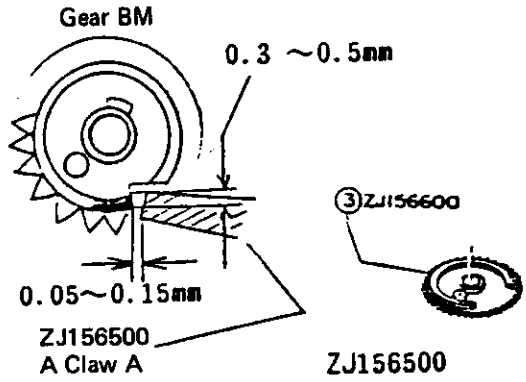
○ Properly position the mask by adjusting the gear engagement until the tip of the 1st curtain metal fitting is located 0.05 ~ 0.4 mm as measured from the right end of the 2nd curtain metal fitting.



(10) Adjustment of engaging depth and gap of ZJ156500 A Claw A

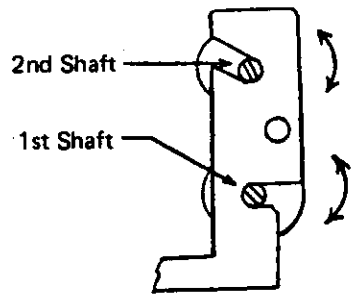
○ Adjust depth of engagement between the gear AM and ZJ156500 A Claw A to 0.3 ~ 0.5 mm by changing position of the magnet while applying the magnet plate onto the magnet.

○ Adjust the gap between the gear BM and ZJ156500 A Claw A by turning the eccentric screw of the gear AM.



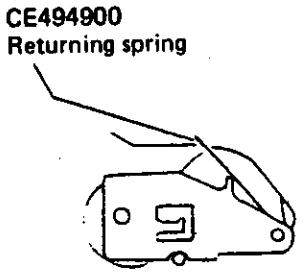
(11) Adjustment of curtain speed

○ Adjust speed of the 1st and 2nd curtains by turning the 1st and 2nd shafts.
Standard: 11.5 ms
Remarks: 12.0 ms for MDJ TYPE 1.

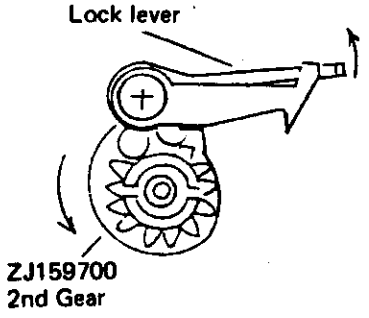


2. Mounting of Shutter Unit

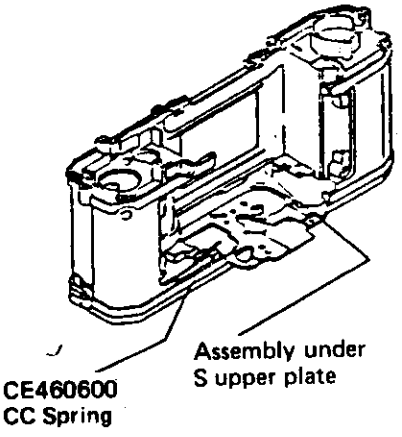
(1) Set the shutter in charged condition.
- O Charge the shutter by turning CE242000 Drum shaft AM.
- O Stretch CE494900 Returning spring between the 4th base plate and S base plate.



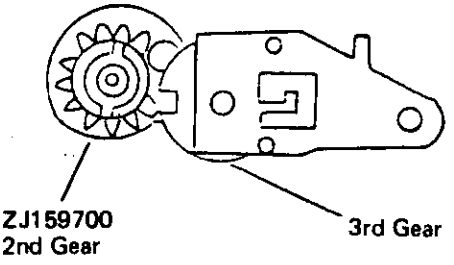
(2) Adjust position of ZJ159700 2 Gear 2.
- O After releasing the lock lever of the L base plate U, rotate the 2nd gear 1/4 turn.



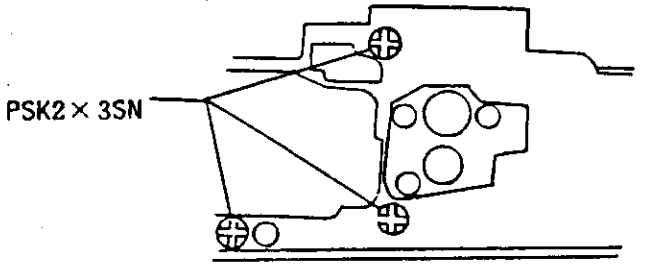
(3) Set the shutter unit into the camera body.
- O Set the shutter unit into the camera body from above.
- O Set CE460600 CC Spring on the top side of the S base plate.
- O Plate the S upper plate of (CE497400) Drum DM under the mask in the camera body.



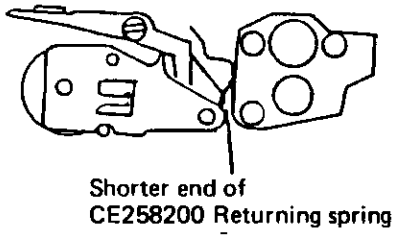
(4) Positioning of 2nd gear.
- O Turn the 2nd gear to its lock position without turning the 3rd gear.
- O Engage the 2nd gear correctly with the 3rd gear.



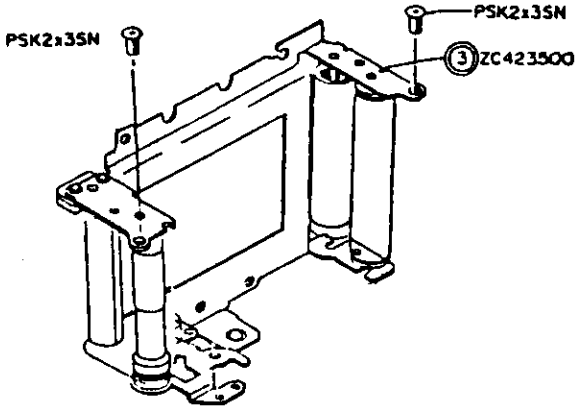
(5) Tighten the screws on the bottom of the camera body.
Take care not to deform the S upper plate.



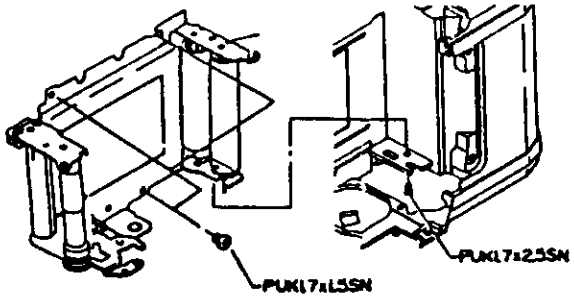
(6) Hook the shorter end of CE258200 Returning spring in the camera body.



(7) Tighten the screws on the top of the camera body.



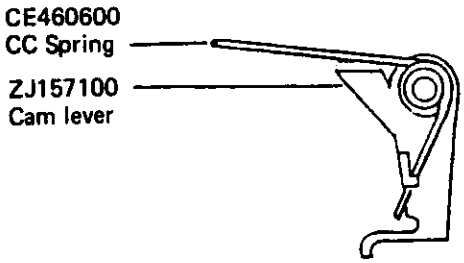
(8) Tighten the screws on the mask.



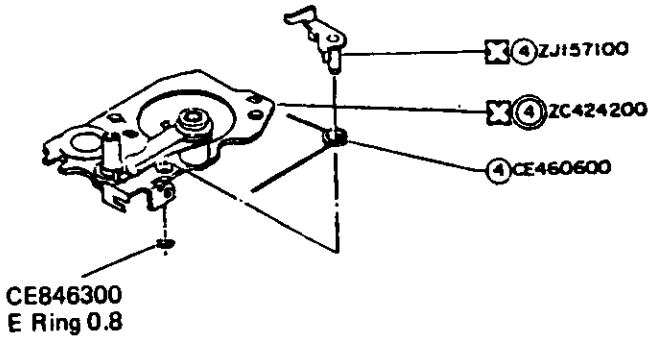
II. F.W. UNIT

1. Reassembly and Adjustment of ZC427500 L Base Plate Unit

(1) Attach CE460600 CC Spring to ZJ157100 Cam lever.

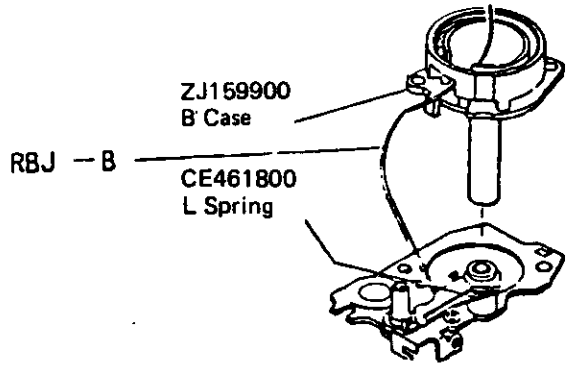


(2) Reassemble ZJ157100 Cam lever with ZC-427500 L Base plate unit, and fit CA846300 E Ring 0.8 in position.



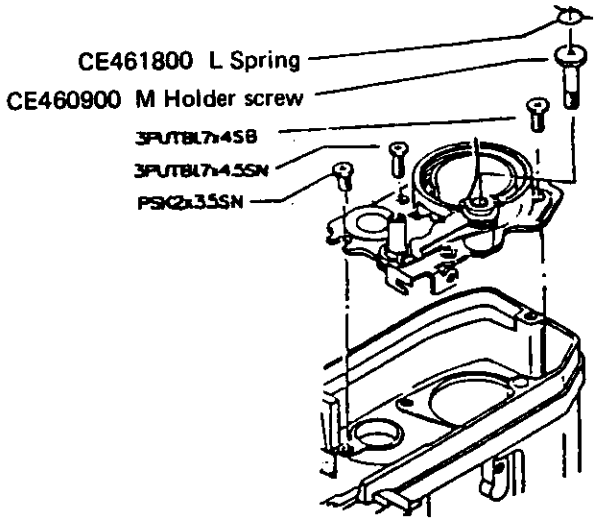
(3) Reassemble ZJ159900 B Case with ZC427500 L Base plate.

- O Insert the black lead wire into the hole formed in the L base plate.
- O Hook CE461800 L Spring in position.



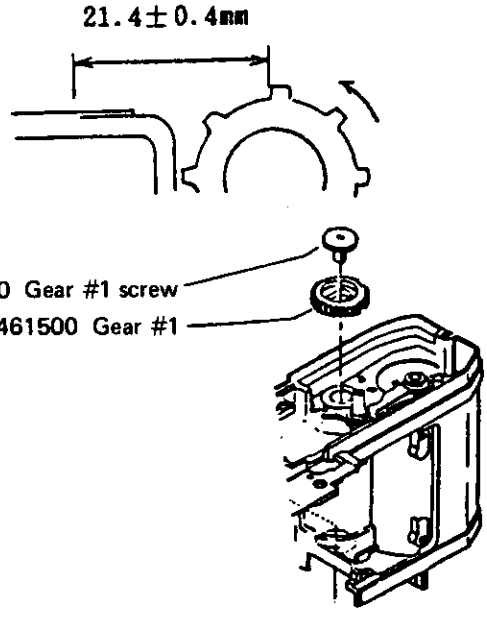
(4) Reassemble ZC427500 L Base plate in the camera body.

- O Hook CE461800 L Spring in position.



(5) Reassemble CE461500 Gear #1 in position.

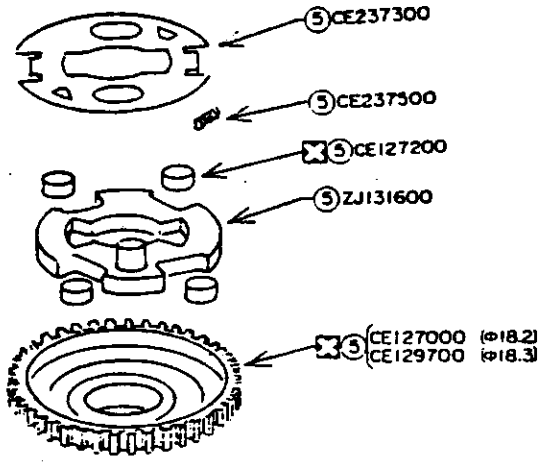
- O Properly position the sprocket by adjusting reassembled position of the gear #1.



2. Reassembly of ZC428100 FW Unit

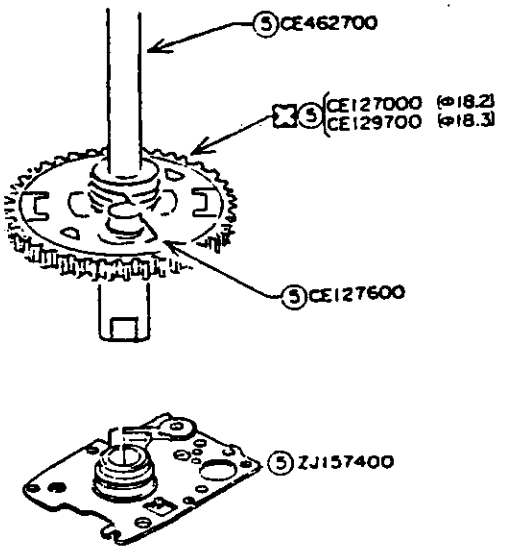
(1) Reassembling CE127000 Wind gear 1 and CE127200 Coller .

- O Turn CE127000 Wind gear 1 inside out and reassemble the parts in the sequence of 1 through 4:
  1. ZJ131600 FW Claw
  2. CE127200 Collar
  3. CE237500 C Spring A
  4. CE237300 Side spring 2



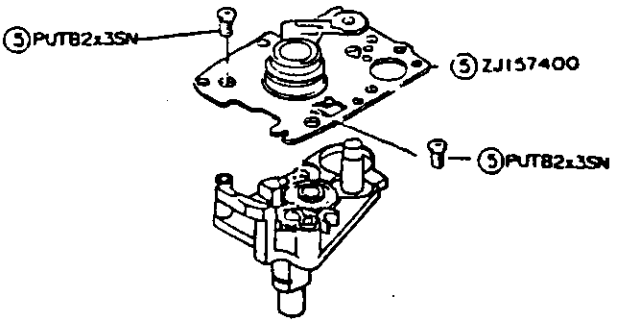
(2) Reassembly of CE462700 FW Shaft

- O Push CE462700 FW Shaft into the FW wind gear of CE127000.
- O Hook CE127600 Returning spring as shown on the right side.
- O Reassemble CE462700 FW Shaft ass'y with ZJ157400 U Base plate.

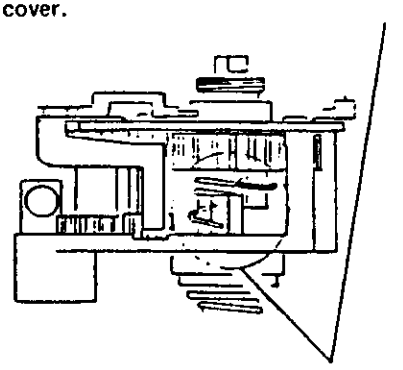


(3) Reassembly of ZJ157400 U Base plate

- O Set CE462700 FW Shaft ass'y into ZJ-158000 Spool gear ass'y and hook CE-127600 Returning spring as shown below.
- O After reassembling the U base plate in position, tighten two PUTB2x3SN Screws.

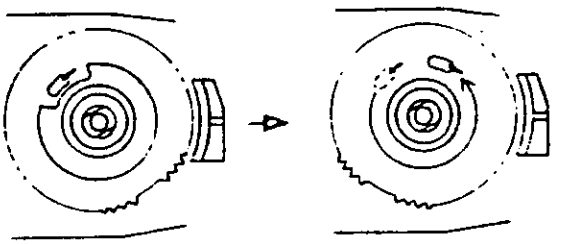


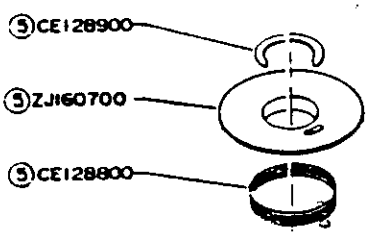
Protrusions are formed at two locations. Hook CE127600 Returning spring with the one located on the side of the rear cover.



(4) Reassembly of ZJ160700 FC Plate

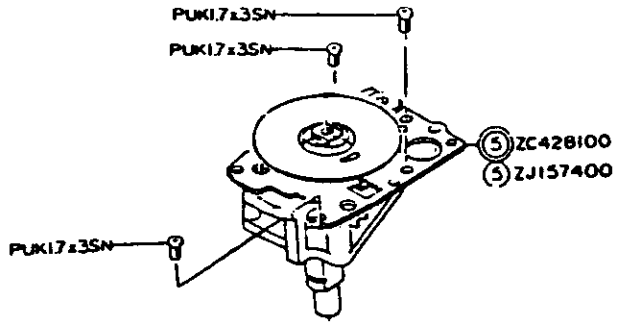
- O Hook CE128800 FC Spring 2 with the protrusion of the U base plate. By applying torque to ZJ160700 FC Plate, set CE128900 FC Stopper beyond the protrusion.





(5) Reassembly of ZC428100 FW Unit

- O Reassemble the FW unit into the camera body, and tighten three PUK1.7x3SN Screws.
- O Hook CE128600 FC Spring 2 as shown below.

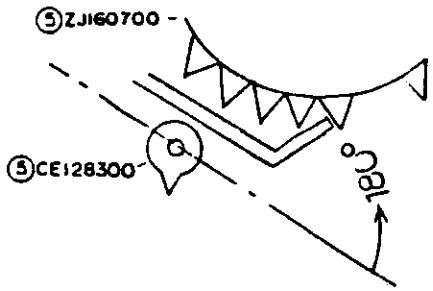


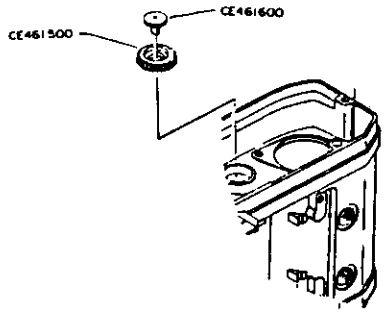
3. Adjustment of ZJ160700 FC Plate

(1) Positional check and adjustment of CE128300 FC Gear

- O At the stage of the initial film winding, CE128300 FC Gear must be located at the 4th tooth of ZJ160700 FC Plate.

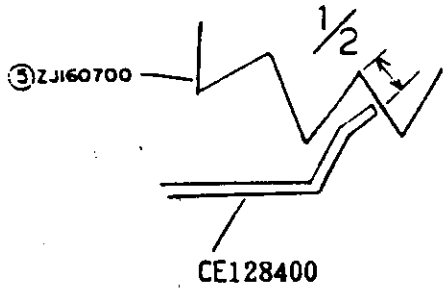
- O At the stage of completing film winding, the protrusion of ZJ128300 FC Gear must not be located within 180° on the side of ZJ-160700 FC Plate.
  After removing CE461500 Gear 1, adjust position of the FC gear.



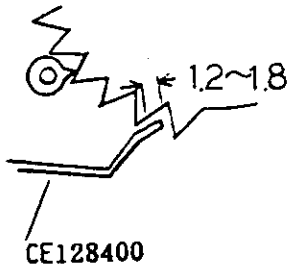


(2) Adjusting engagement of CE128400 FC Base plate

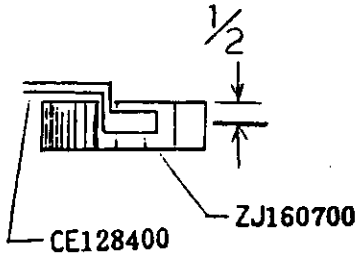
- O At the stage of completing film winding, CE128400 FC Base plate must be engaged with the tooth of ZJ160700 FC Plate at least 1/2 of the tooth depth. If not, adjust by bending CE128400 FC Base plate.



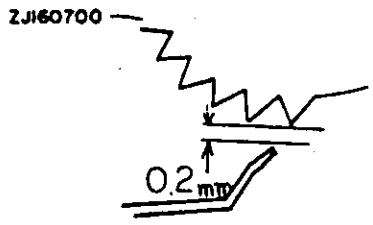
- O Adjust feeding margin of ZJ160700 FC Plate to 1.2 to 1.8 teeth by bending CE-128400 FC Base plate.



- O Engagement depth of CE128400 FC Base plate must be at least 1/2 of the tooth thickness of ZJ160700 FC Plate.
  If not, adjust the engagement depth by bending CE128400 FC Base plate.

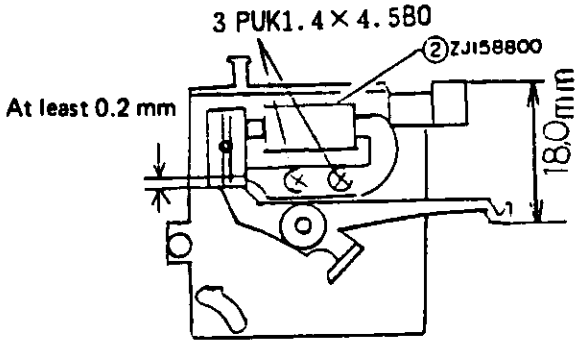


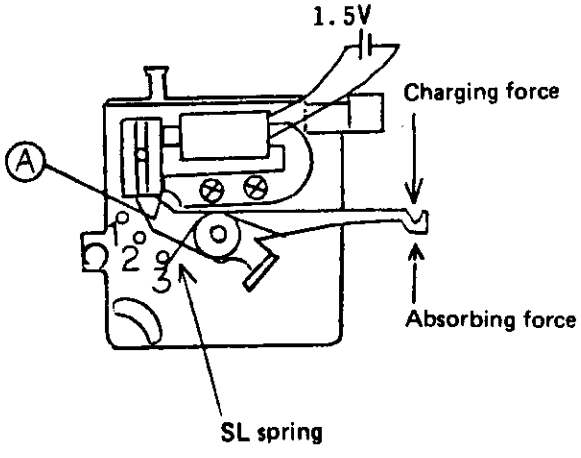
○ The gap between CE128400 FC Base plate and ZJ160700 FC Plate must be at least 0.2 mm all round ZJ160700 FC Plate after the rear cover is opened gently.



III. FRONT CASTING

1. Check and Adjustment of ZC426900 Side Plate R





○ Reassembly and Adjustment of Combination MG
Positioning of ZJ158800 M Shaft
After loosening 3PUK1.4x4.5BO Screws, adjust position of ZJ158800 M Shaft as illustrated on the right side.

○ Charging force: 60 g max.

○ Attracting force: At least 50 g

○ Repulsion voltage: 1.5 V max.

○ In case of absorbing force below 5g
Hook the SL spring with 2 or 1. Check repulsion voltage.

○ If repulsion or attraction is improper, clean the magnet.

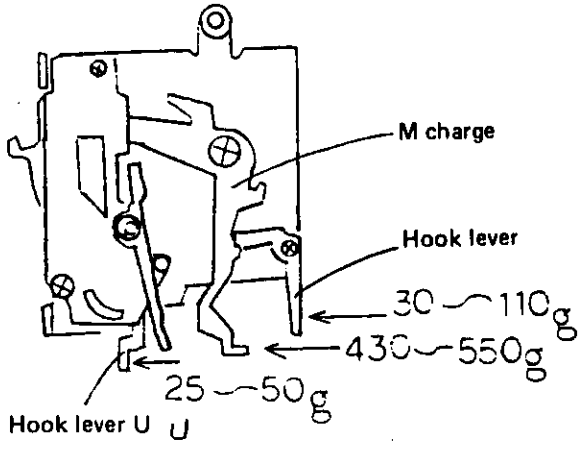
○ Apply 023P Grease to area A in an amount required for steel ball B0.5 ~ B1. Note that the mirror is locked if the grease is applied to area other than A.

2. Check and Adjustment of ZJ158100 Side plate L

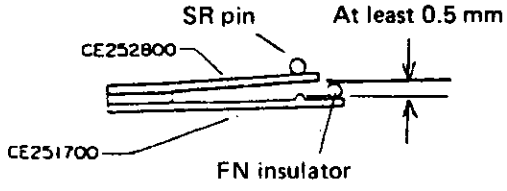
○ Check of M charge for its operation
430 ~ 550 g

○ Check of hook lever U for its operation
25 ~ 50 g

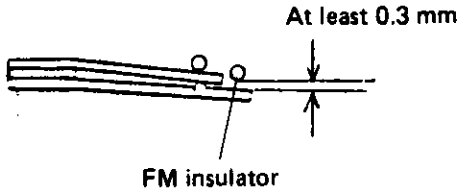
○ Check of hook lever D for its operation
30 ~ 110 g



○ Check of FP contact for its operation
In the OFF condition, the gap between CE252800 F Upper contact and CE251700 F Lower contact must be at least 0.5 mm.



In the ON condition, the gap between the F lower contact and FM insulator must be at least 0.3 mm.



3. Focusing of Viewfinder

(1) Correction of ununiform focusing

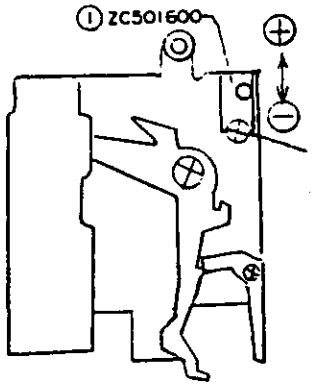
○ Correction in X direction

After attaching the front plate to the ununiform focusing corrector, correct ununiform focusing in the X direction by slightly moving ZC501600 M Plate on the mirror mount .

Standard: +1 ± 4'

The image shifts in the "+" direction by raising ZC501600 M Plate.

Use jig mirror

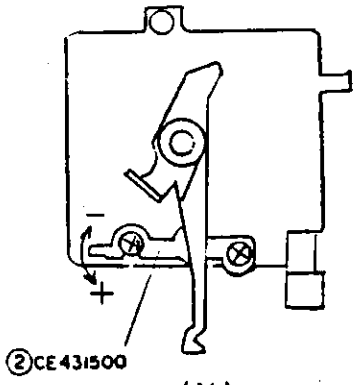


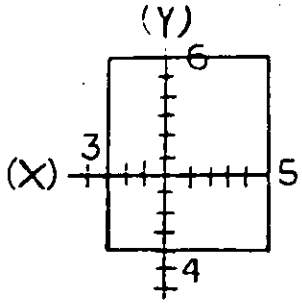
○ Correction in Y direction

After attaching the ununiform corrector, correct ununiform focusing in the Y direction by slightly moving CE431500 45 Adjustor on the mirror stopper.

Standard. +1 ± 5'

The image is shifted in the "−" direction by raising CE431500 45 Adjustor.





(2) Positional adjustment of Fresnel lens

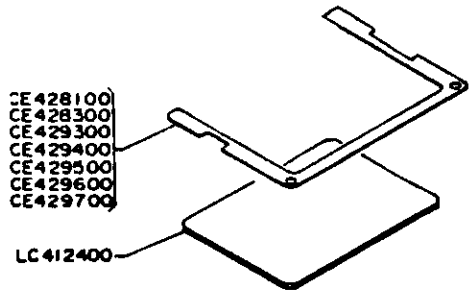
○ Attach the camera to FP FC collimator F = 500.

○ Mount KC0113 Jig mirror in position and measure the focused position.

Standard: 46.05 ± 0.02

Adjust position of the Fresnel lens by using the seven types of F washers:

CE428100	F Washer 2,	t 0.02
CE429300	F Washer 5,	t 0.05
CE428300	F Washer 8,	t 0.08
CE429400	F Washer 10,	t 0.10
CE429500	F Washer 20,	t 0.20
CE429600	F Washer 30,	t 0.30
CE429700	F Washer 40,	t 0.40

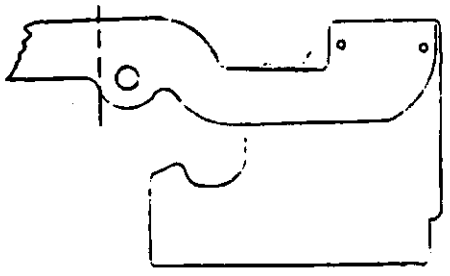


IV. FORMING OF LEAD WIRES AND FLEXIBLE PRINTED CIRCUIT

1. Forming of Flexible Printed Circuit

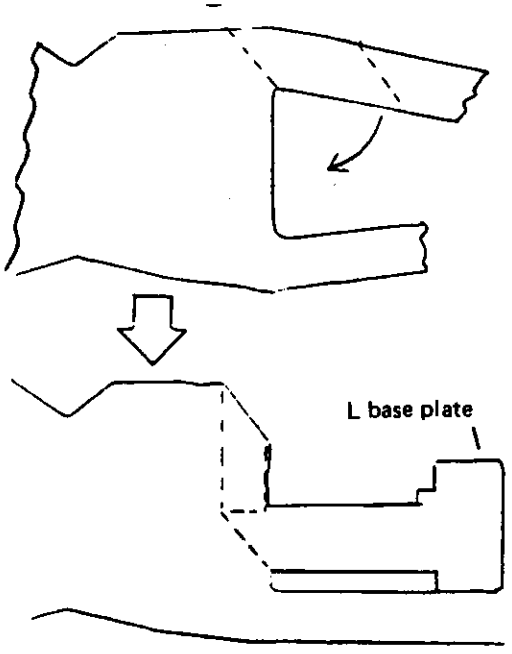
(1) Bend the rise portion along the dashed line shown on the right side.

F P M



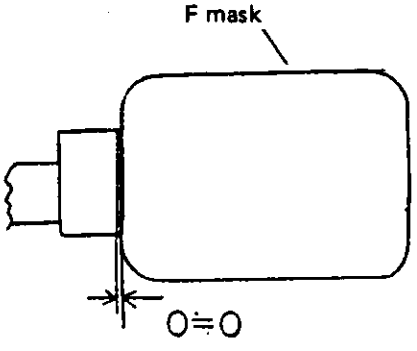
JM base plate

(2) Bend the L base plate as shown on the right side.



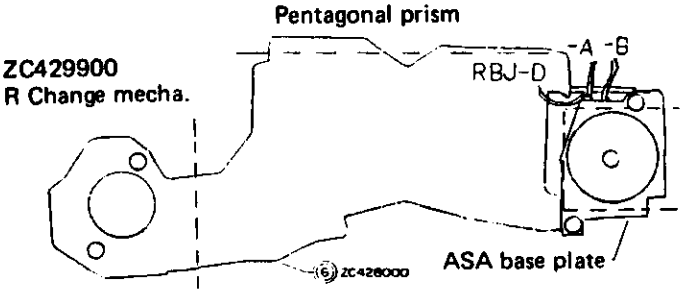
(3) Location of LED

The LED must not protrude into the viewfinder.



(4) Forming of lead wires on the top of the flexible printed circuit.

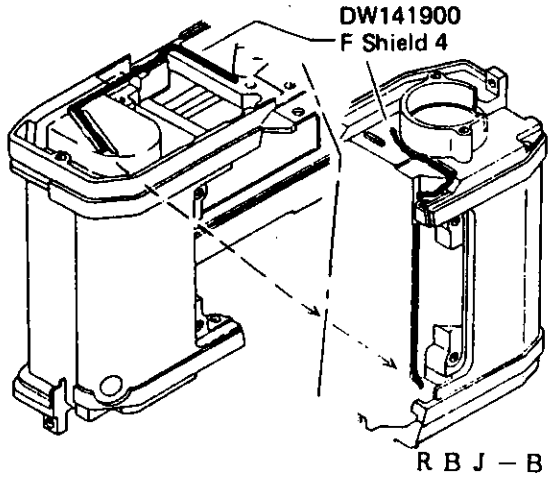
Do not form the lead wires around the front of the pentagonal prism, ZC429900 R Change mecha and ASA base plate (outside the dashed lines).



2. Forming of Lead Wires

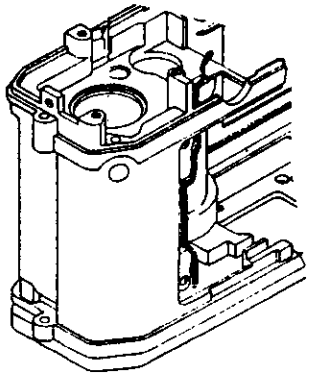
(1) Forming of shielded wire

Form the shielded wire as shown below.

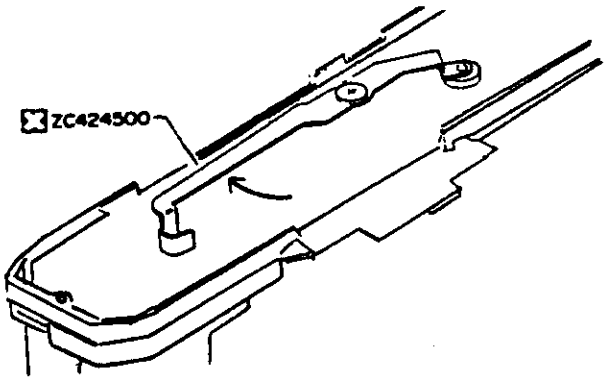


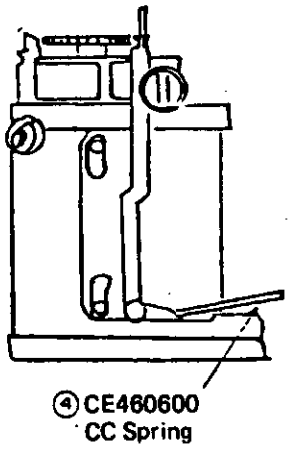
(2) Forming of negative power cord

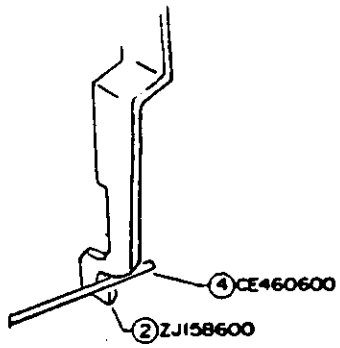
Form the negative power cord as shown below.

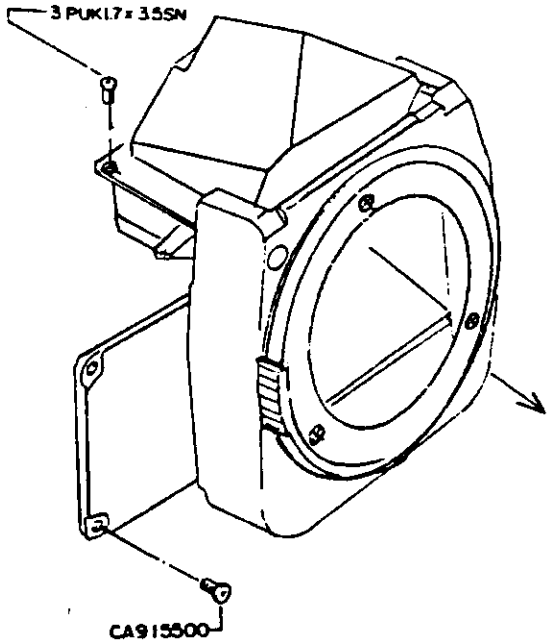


2. Set the shutter in charged condition.
   - O Check ZC428000 M Circuit board and the lead wires for their formed conditions.
   - O Put CE460600 CC Spring as shown below.
   - O When ZC424500 KM Lever is assembled in position, allow it to escape to the rear of the camera body.







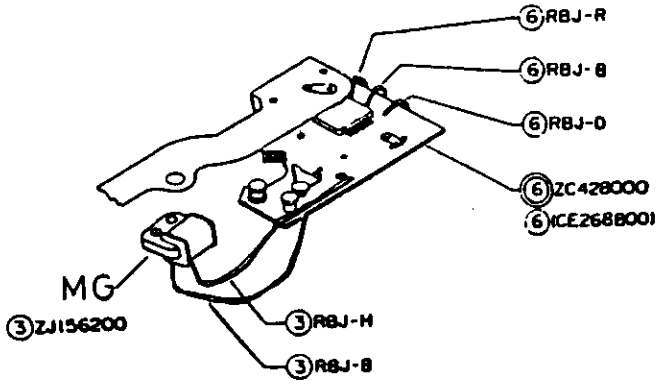


3. Set the front casting into the camera body.
   - O Set the lower portion of ZJ158100 Side plate L into the camera body.
   - O Set ZJ158600 SL Lever at the back of CE460600 CC Spring.
   - O Check the lead wires for their held conditions.
   - O While urging the front casting toward ZJ160600 SW Base plate, tighten four CA-915500 Screws.
   - O Tighten 3PUK1.7x3.5SN Screw on the top of the front plate.

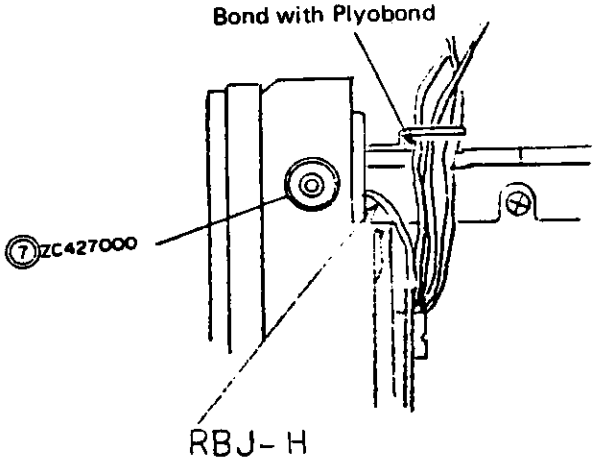
VI. ADJUSTMENT OF EXPOSURE CONTROL CIRCUIT

1. **Adjustment of Lock Voltage**
   - O Input 2.05 V from the constant-voltage power supply.
   - O Lock the mirror by releasing the shutter.
   - O Slowly turn RV102 until the mirror lock is released. Set RV102 at this position.
   - O Adjust the input voltage to 2.00 V and make sure that the mirror is locked at this voltage level.

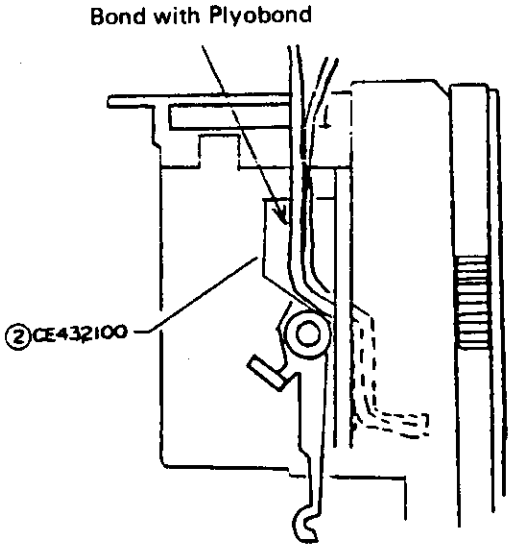
(3) Forming of lead wires on JM base plate
The MG lead wires can easily be disconnected and must be handled carefully.
Pass RBJ–B, R and D under the JM base plate, and take them out through the notch of the JM base plate.



(4) Forming of lead wires on front plate
○ Attach RBJ–H to ZC427000 Grip.
Since RBJ–H may be twisted off, the lead wire should preliminarily be wound in the reverse direction.

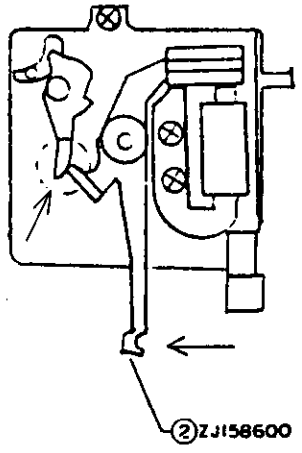


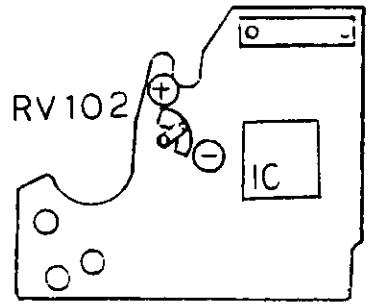
○ Forming of combination magnet
Lead wires of CE432100 C cover
For the lead wires into the forming groove and bond them with Plyobond.



V. DOCKING OF FRONT CASTING

1. While pushing up ZJ160500 M Frame to keep the mirror at the UP position, push ZJ159600 SL Lever as shown below to attract the magnet. Then, release your finger from the mirror. (Release the M lock so that the shutter is released mechanically.)

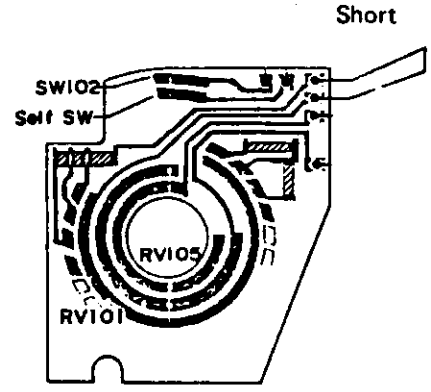


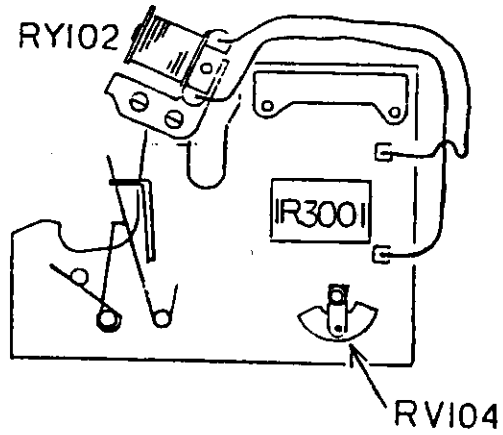


JM base plate

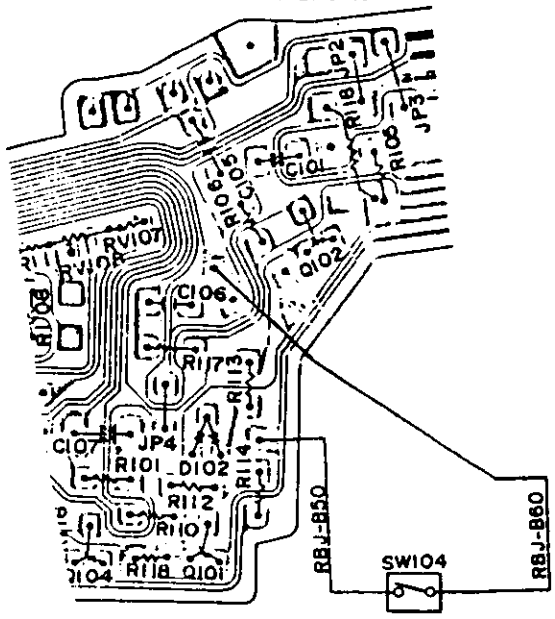
2. Offset Adjustment

- O Input 3.1 V from the constant-voltage power supply.
- O Short the black lead wire which is connected to the main switch.
- O Turn ON the trigger switch.
- O Short the ASA resistor (RV101) for AUTO mode.
- O Turn RV104 until voltage on RY102 is switched from 3 V to 0 V or vice versa.





Flexible Printed Circuit

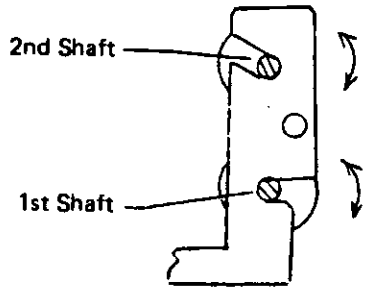


3. Adjustment of Manual Time

(1) Check and adjustment of curtain speed

Adjust curtain speed by turning the 1st and 2nd shafts.

Curtain speed: 1st curtain 11.5 ± 0.1 ms
2nd curtain 11.5 ± 0.1 ms

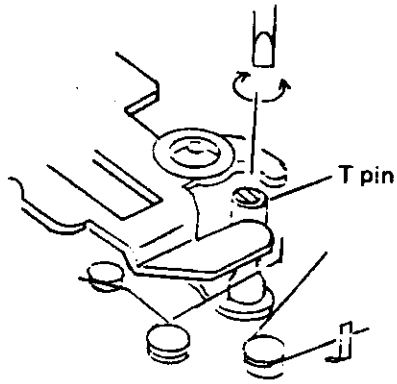


(2) Adjustment of high speed time

(1/500 ~ 1/1000)

Adjust high speed time by turning the T pin.

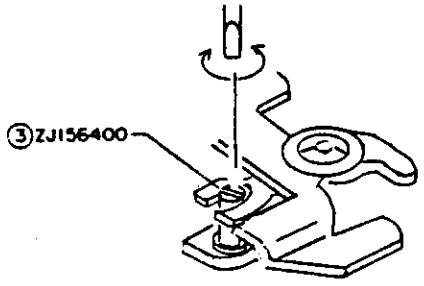
1/500 1.17 ~ 3.12 ms
1/1000 0.58 ~ 1.56 ms



(3) Adjustment of mini time

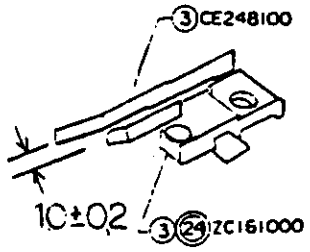
Adjust mini time by turning the pin of ZJ-156400 K Lever.

Mini time: 0.7 ~ 2.0 ms



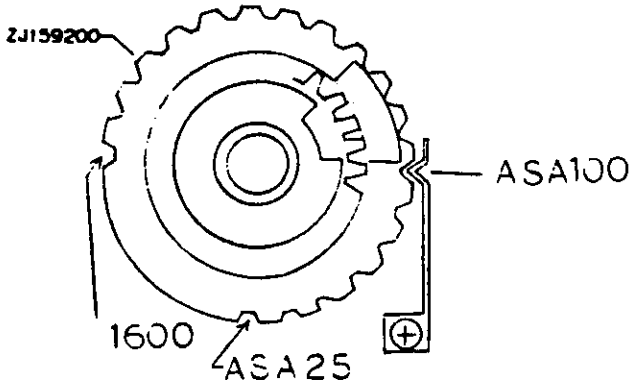
(4) Adjustment of X time

Adjust X time by changing the gap between CE248100 X Contact 1 and ZC161000 FX Base.

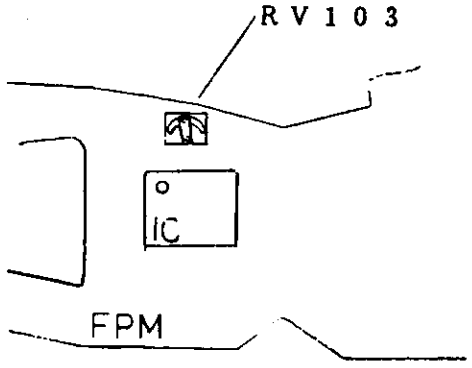


4. EE Adjustment

- O After temporarily reassembling ZC429900 R Change mecha., set the camera in the AUTO mode.
- O Set ASA at 100.



- O Adjust BV11, F5.6, ASA100 within 0 ± 0.04 (deviation should desirably be 0).
  If BV11 is not available, use BV12 (+0.2 ± 0.04). Perform EE adjustment by turning RV103 shown below.



- O Luminance adjusting standards

  ASA100, F5.6

  New battery 3.15 ± 0.01 V x 2, K = 1.3

BV15	+0.3 −0.5 ~ +0.9	−0.2 ~ +1.2 EV
BV14	+0.3 ± 0.5	−0.2 ~ +0.8 EV
BV12	+0.1 ± 0.5	−0.4 ~ +0.6 EV
BV11	0 ± 0.5	−0.5 ~ +0.5 EV
BV10	0 ± 0.5	−0.5 ~ +0.5 EV
BV8	0 ± 0.5	−0.5 ~ +0.5 EV
BV6	0 ± 0.5	−0.5 ~ +0.5 EV

- O Standards for adjusting ASA switching accuracy

  Allowable deviations from BV8, F5.6, ASA100

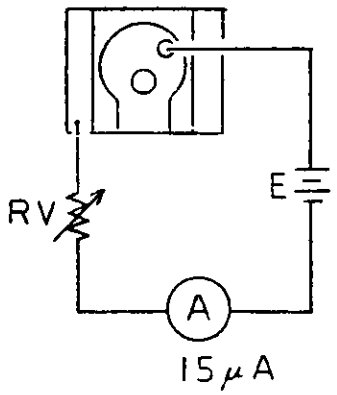
ASA 25 ~ 400	−0.35 ~ +0.35 EV
ASA500 ~ 800	−0.6 ~ +0.6 EV
ASA 1600	−0.9 ~ +0.9 EV

- O Allowable exposure deviation from central value: ± 0.2 EV

- O Maximum exposure time in the dark: At least 2 sec.

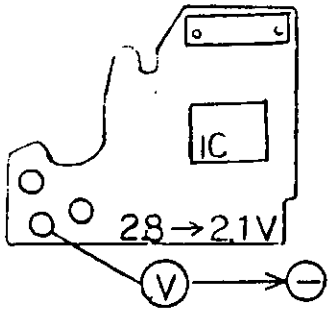
5. **Check of Automatic X Time Switching**

○ Form a circuit as shown below and adjust current by using an optional variable resistor.



○ When a current of 15 μA is flowed to the shoe terminal mentioned above, voltage must be switched from 2.8 V to 2.1 V on the trigger switch terminal.

AUTO standard voltage: 2.8 V
MANUAL standard voltage: 2.1 V

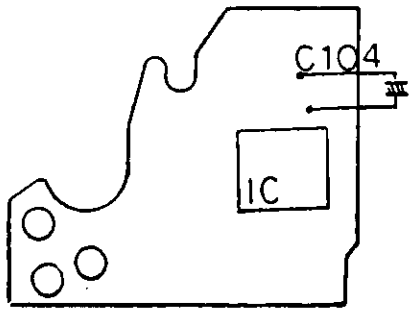


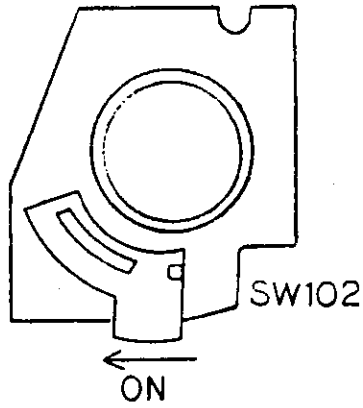
6. **Check and Adjustment of Self Time**

○ Short SW102 shown below in the SELF mode.

○ Release the shutter. It must be released in 9 ~ 15 sec.

○ For adjusting self time, vary capacity of capacitor C104.





VII. MATCHING OF SHUTTER TIME AND INDICATING LED IN VIEW FINDER

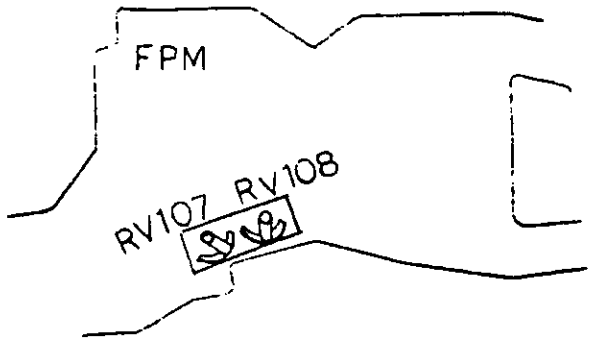
Use the matching jig lens.

1. **Gamma Adjustment**

(1) After setting the camera at BV14, ASA200, F5.6, adjust RV108 so as to obtain a reading of 1000.

(2) After setting the camera at BV8, ASA200, F5.6, indicating LED "15" must light.
If the LED does not light, turn RV108 for coarse adjustment and RV107 for fine adjustment.

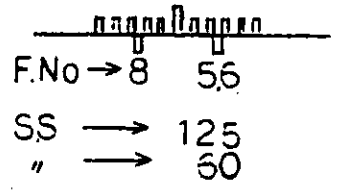
(3) After adjustment in step 1-(2) above, perform the adjustment in step 1-(1). Repeat both the steps.



2. **Adjustment of Lighting Level**

(1) After setting the camera at BV11, ASA200, an intermediate stage between F8 and F5.6, both the "125" and "60" LEDs or "125" LED only must light. If this requirement is not met, adjust RV107.

(2) When "125" LED only lights, turn the stop ring until both the "125" and "60" LEDs light.
If this requirement is not met, adjust RV108.



3. Check of Indication Accuracy

(1) Luminance switching accuracy

ASA200	F5.6	BV14	"1000"	± 1 step
ASA200	F5.6	BV8	"15"	± 1 step

(2) ASA switching accuracy

ASA25	F2.8	BV14	"500"	± 1 step
ASA25	F16	BV14	"15"	± 1 step

4. Checks of lighting conditions and positions of LEDs

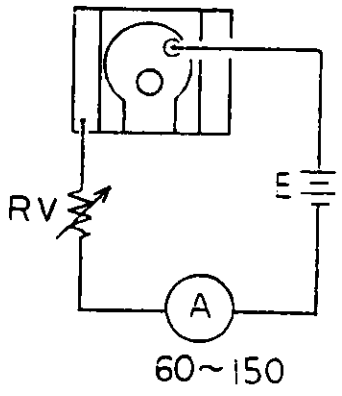
At ASA100, BV14: F1.8 ⟷ F16
At ASA100, BV8 : F1.8 ⟷ F16

Over the settings mentioned above, LEDs from "OVER" to "1" must light.
Plural LEDs other than those adjacent to each other must not light simultaneously.

VIII. CHECK OF LEDS LIT IN VIEWFINDER

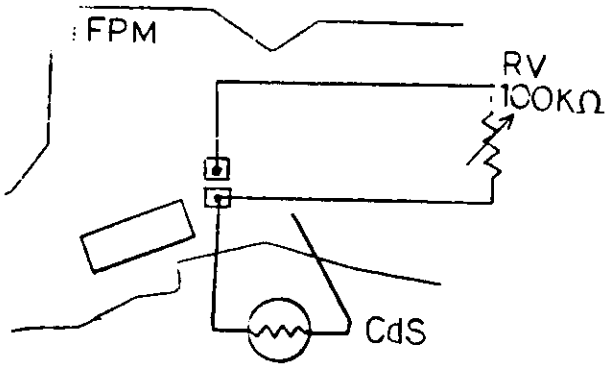
1. Indication of Strobe Charging

- O Form a circuit as shown below and adjust current with an optional variable resistor.
- O The strobe indicating LED should light in the viewfinder at 60 ~ 150 μA.



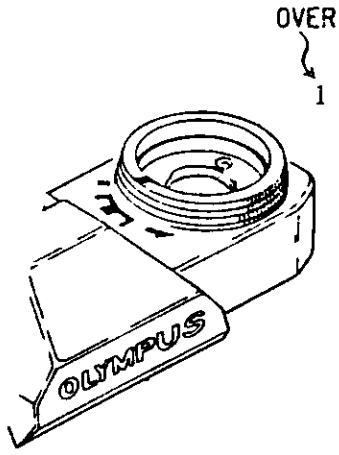
2. Indication of Shutter Time

- O Disconnect a CdS lead wire and connect a variable resistor of 100 kΩ.
- O Turn the variable resistor of 100 kΩ.
  The indicating LEDs from OVER to 1 must light sequentially. (If not, turn ASA resistor RV105 or F resistor RV106.)



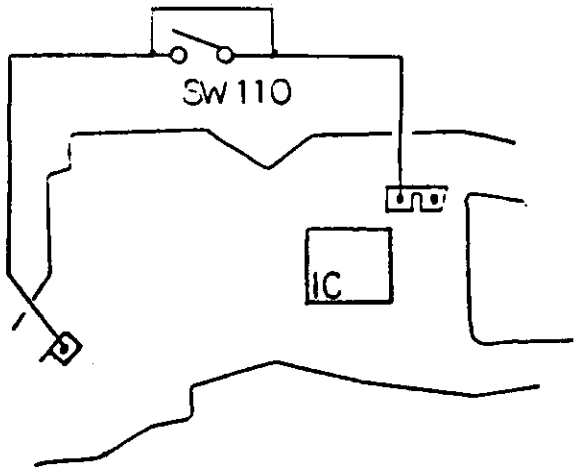
3. Indication of Manual Mode

- O After temporarily reassembling ZC429900 R Change mecha., set the camera in the MANUAL mode.
- O The manual mode indicating LED (MANU) lights.



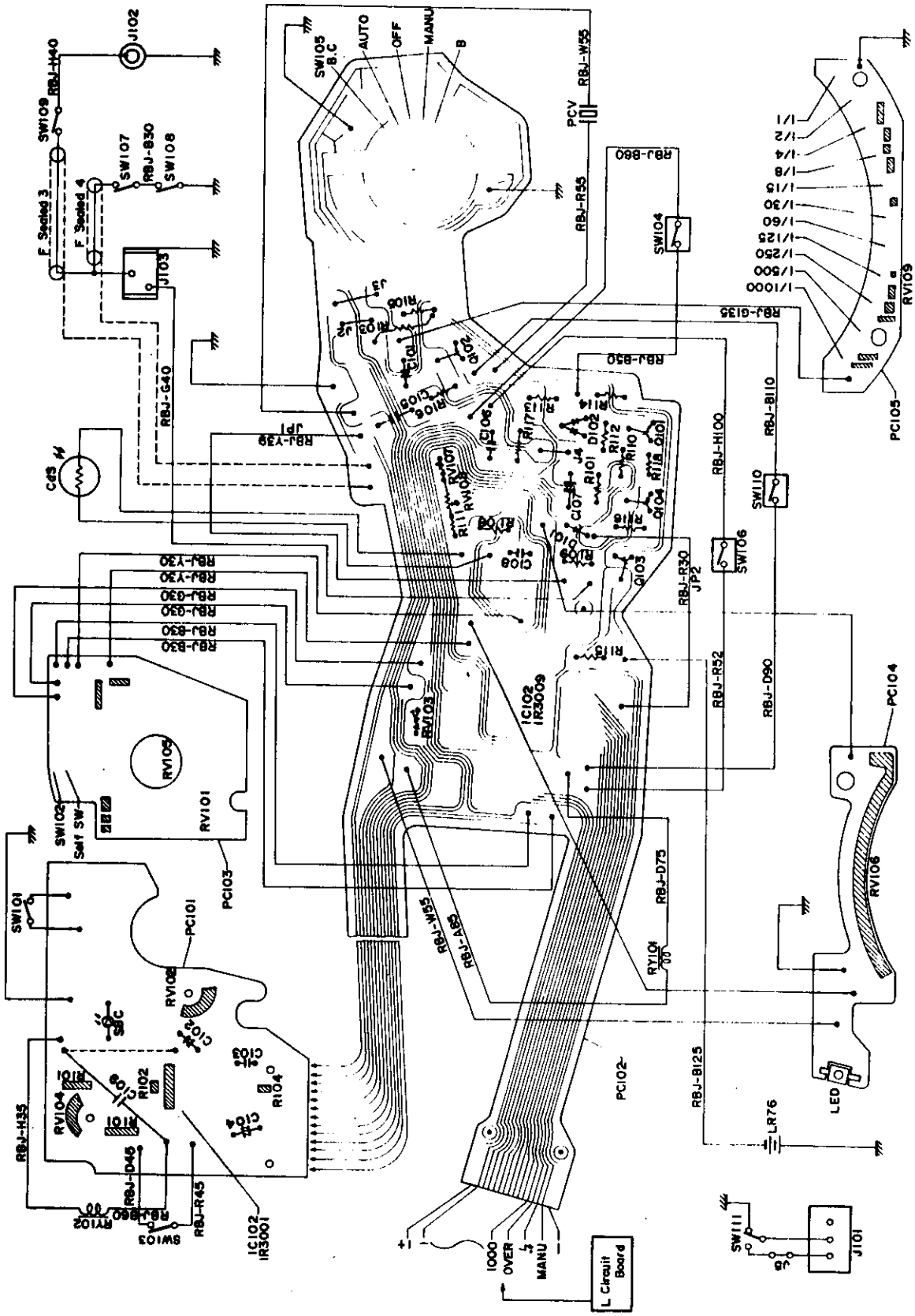
4. Indication of "+" and "–" Exposure Corrections

- O After shorting SW110, turn ON SW 106.
- O The "+" or "–" exposure correction indicating LED lights.


SW110
IC

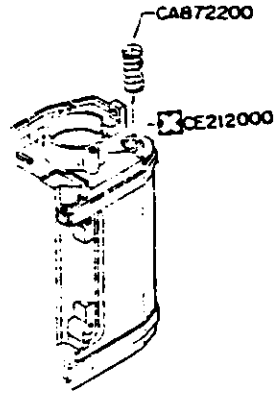
IX. REASSEMBLY AND ADJUSTMENT OF UPPER PLATE UNIT

1. Soldering of Lead Wire

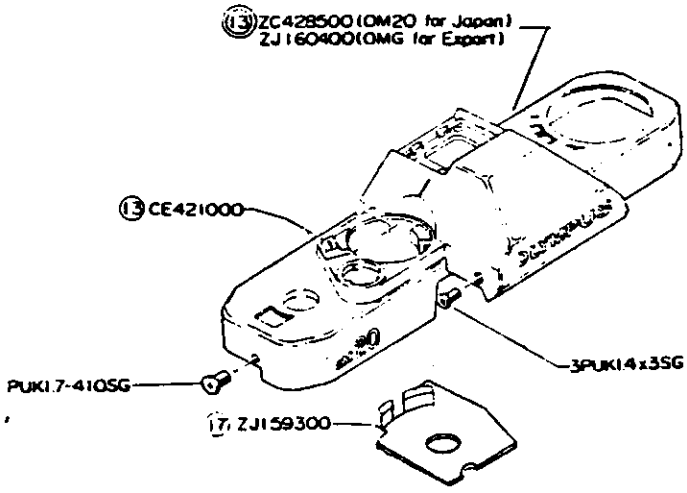


2. Reassembly of Upper Plate Unit

- O Arrange the lead wires as described in D-10 above and bond CE452800 R Insulator.
- O Place CA872200 Key spring on CE212000 Key plate A.



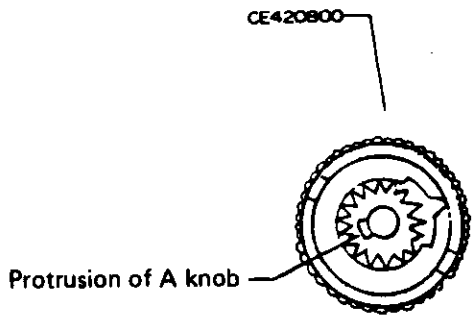
- O Fit the protrusion of CE421000 ST lever A into the cavity of ZJ159300 ST lever B.
- O Attach ZC428500 Top cover on the side of the B mount. No lead wire should mount on the ridge of the pentagonal prism. If the top cover is floated up and rattled, detach it and check the lead wires.
- O Tighten four PUK1.7–410SG Screws and three 3 PUK1.4x3SG Screws.

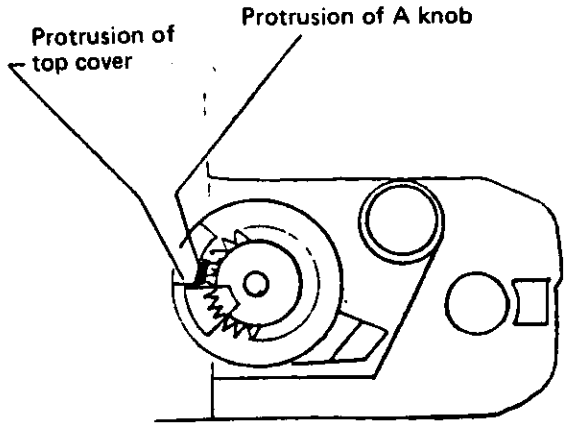


3. Reassembly of CE420800 A Knob

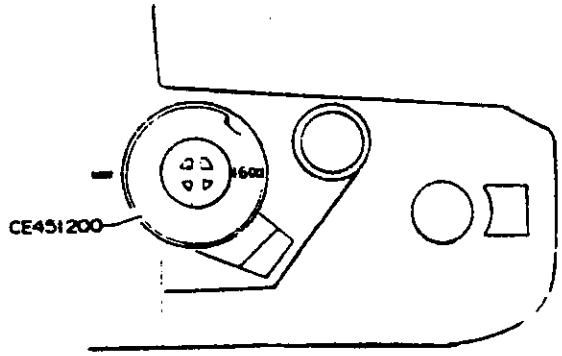
(1) Adjust ASA position
Turn ZJ159200 A Lever clockwise until is it brought into contact with the protrusion of the top cover (ASA1600).

(2) Set CE420800 A Knob in such a position that its protrusion is set side by side with that of the top cover.

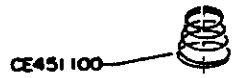




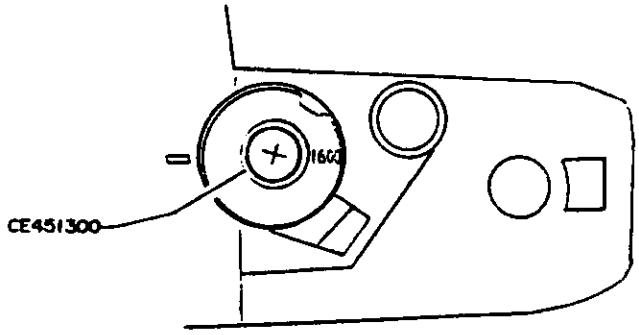
(3) Set CE451200 ASA plate in such a position that the characters "1600" marked on it are in parallel with the camera body.



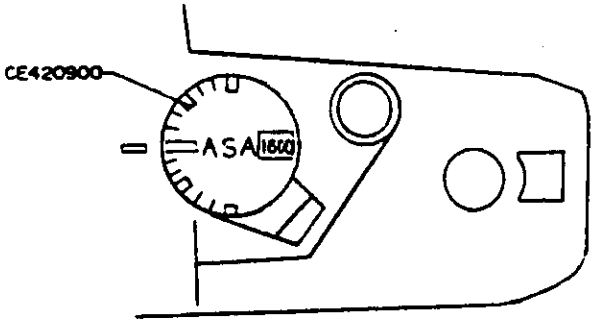
(4) Set CE451100 A Knob spring with its larger diameter side kept downward.



(5) Tighten CE451300 ASA Screw.



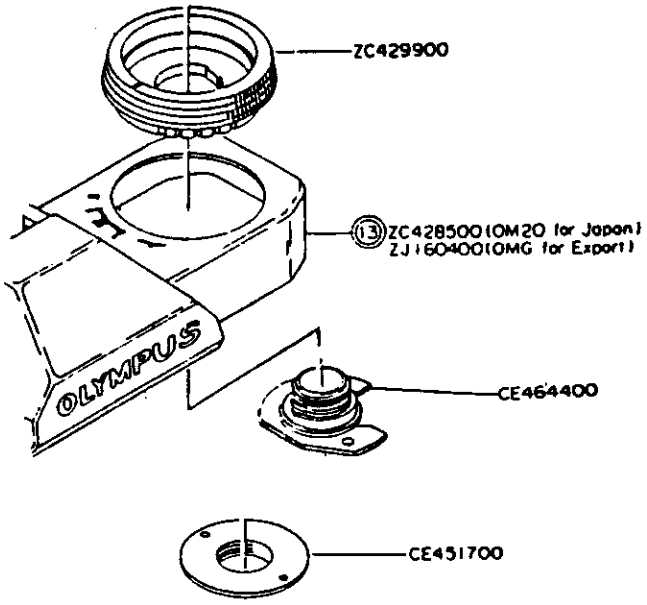
(6) Forcibly press CE420900 AS Cover into position with its index aligned with that on the top cover.



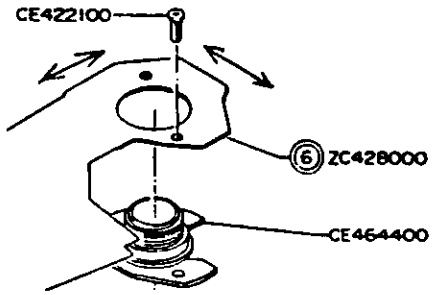
(7) Check ASA switching from 1600 to 25.

4. Reassembly of ZC429900 R Change Mecha.

- O Set ZC429900 R Change mecha. into CE-464400 R Shaft holder. (Take care not to deform the click groove and contact of the R change mecha.)
- O Tighten CE451700 R Stopper.



- O Check mode selector for its operation.
  If each mode cannot be selected correctly at each click position, correct position of ZC428000 M Circuit board.

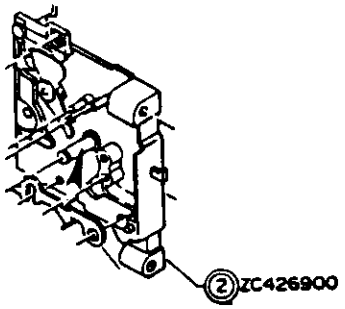


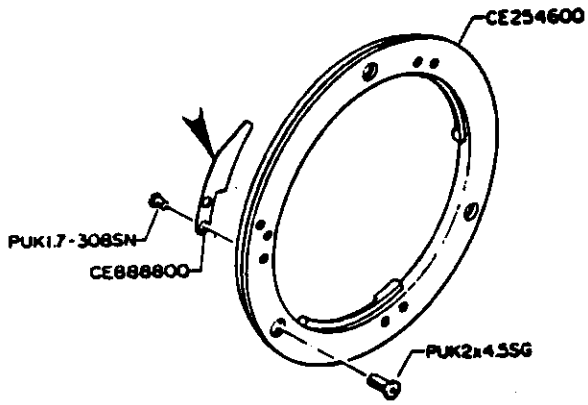
G

PARTS WHERE OIL, GREASE etc SHALL BE USED

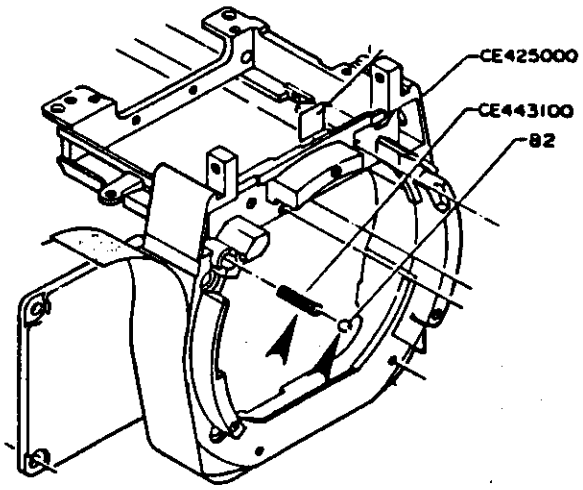
G. PARTS WHERE OIL, GREASE, etc. SHALL BE USED

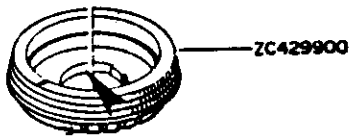
0 2 3 P

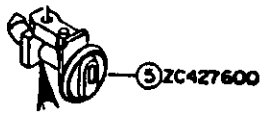




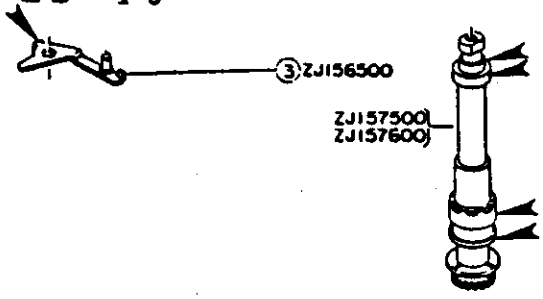
H 2 6



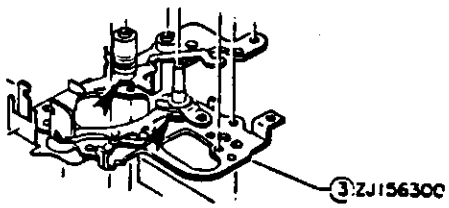




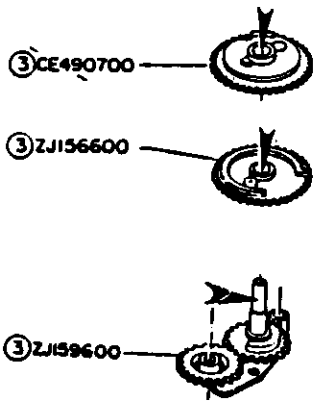
E D – 1 6



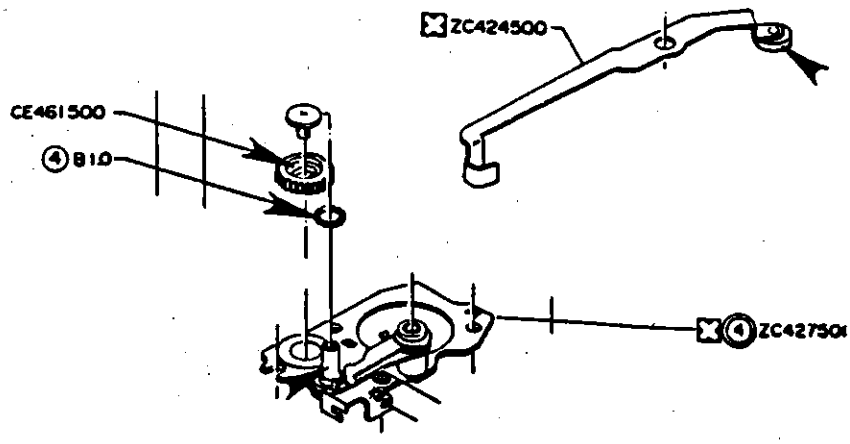
Cosmol-brick



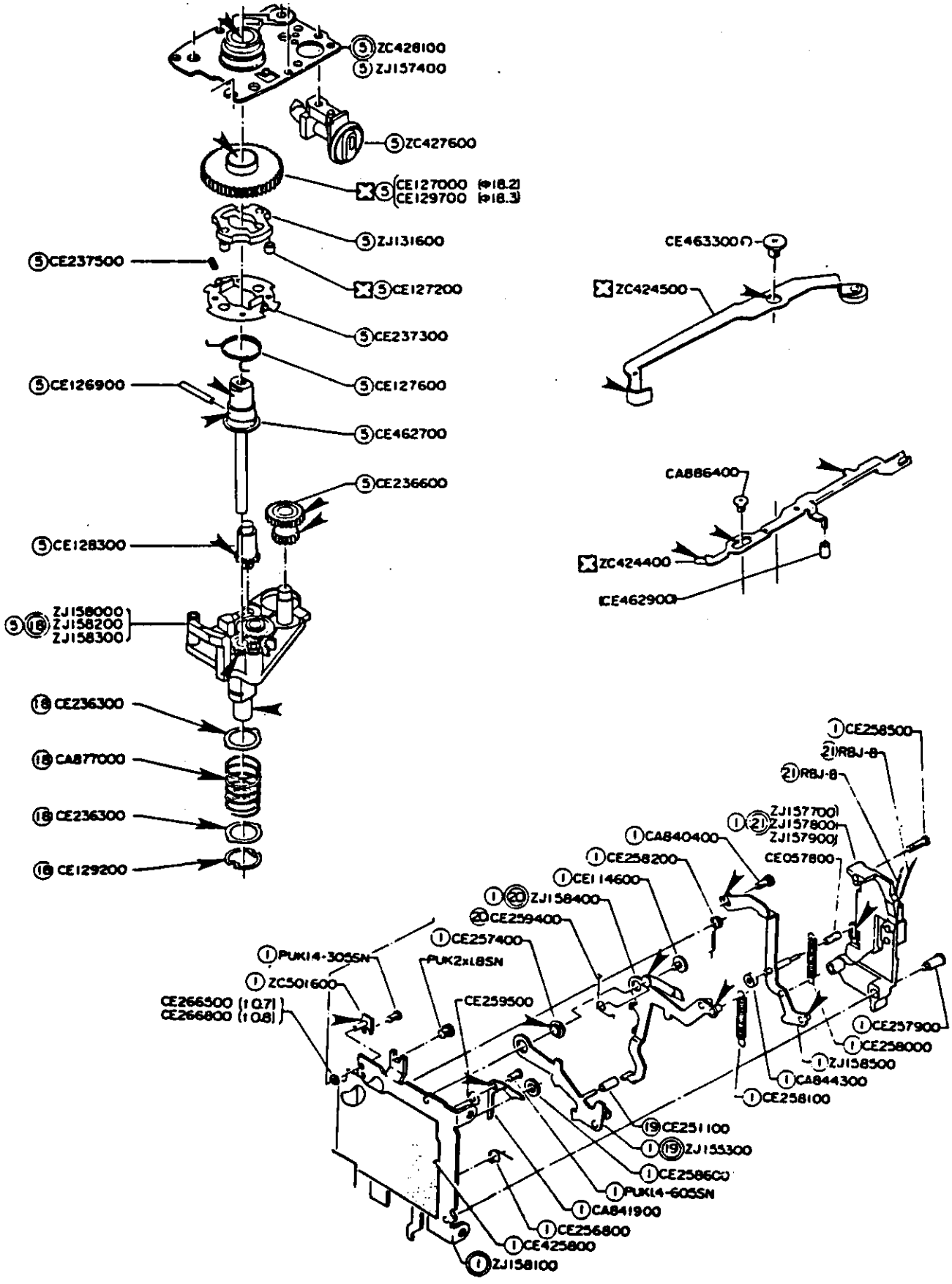
Silicon KF-96



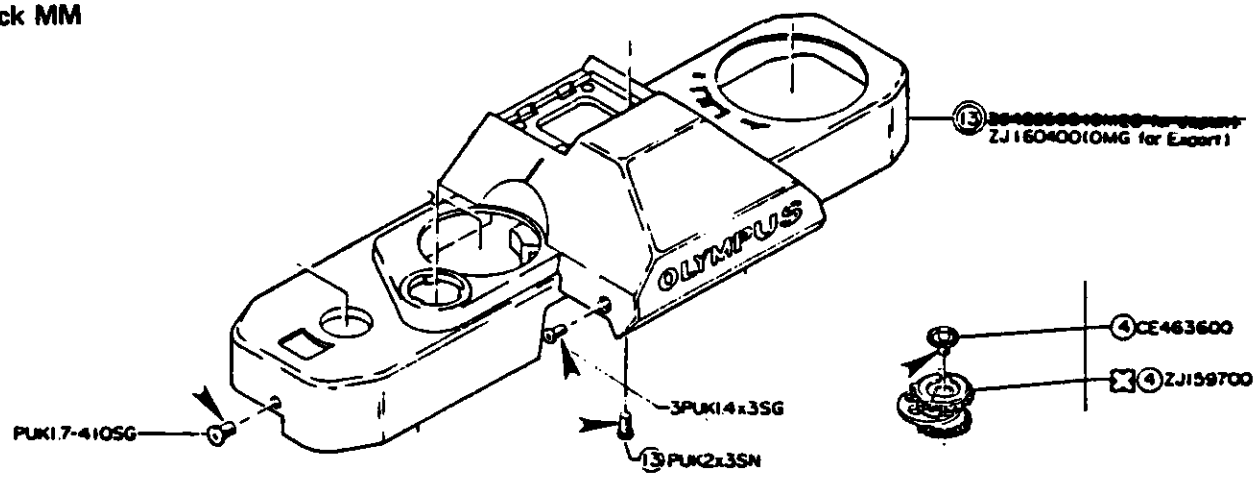
EP Grease

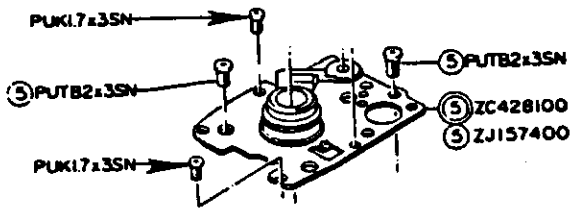


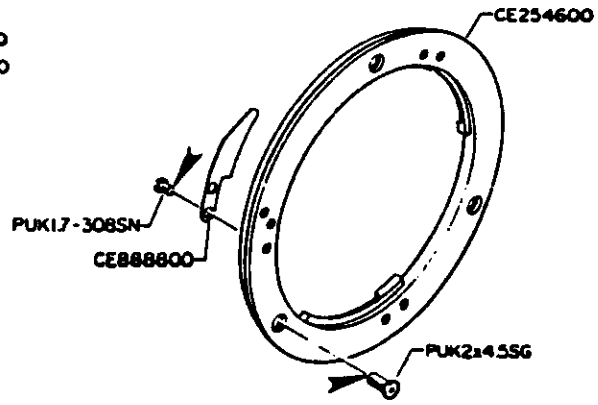
Molycoat Grease

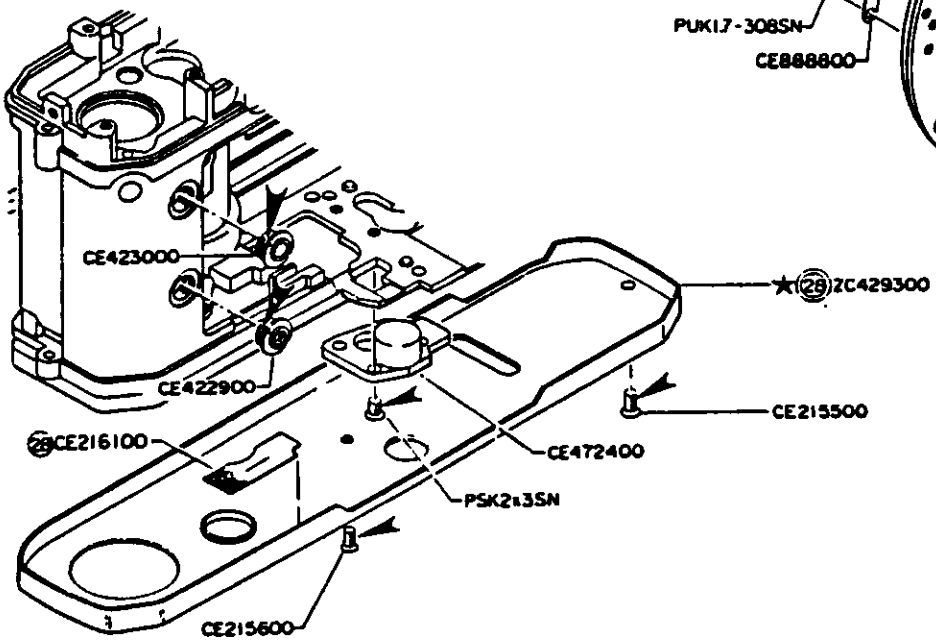


Bell-lock MM

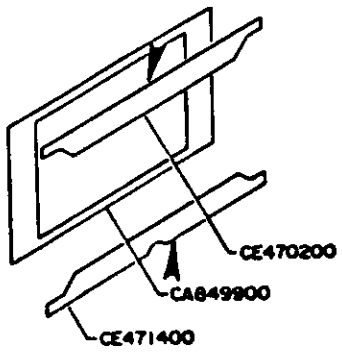




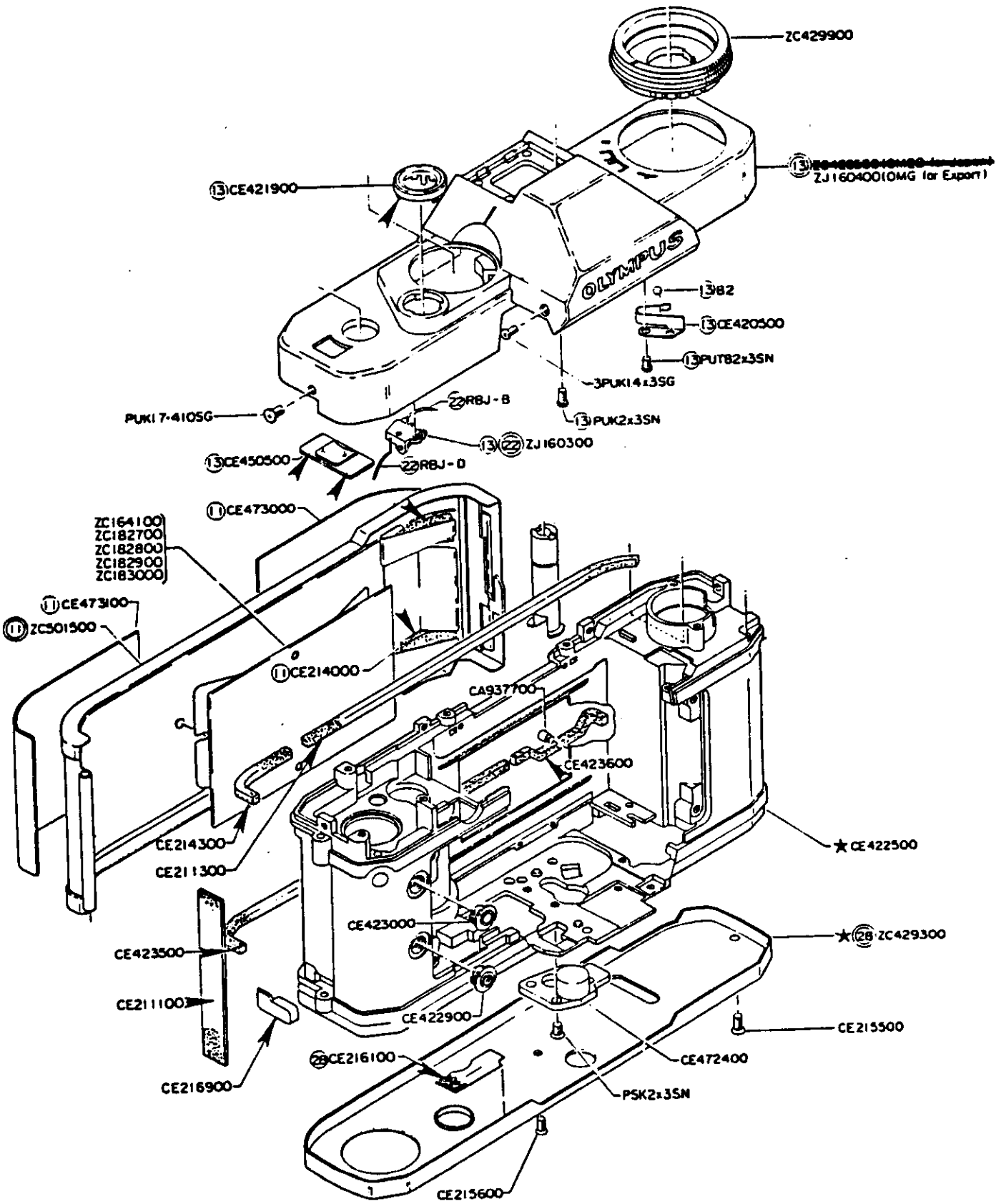




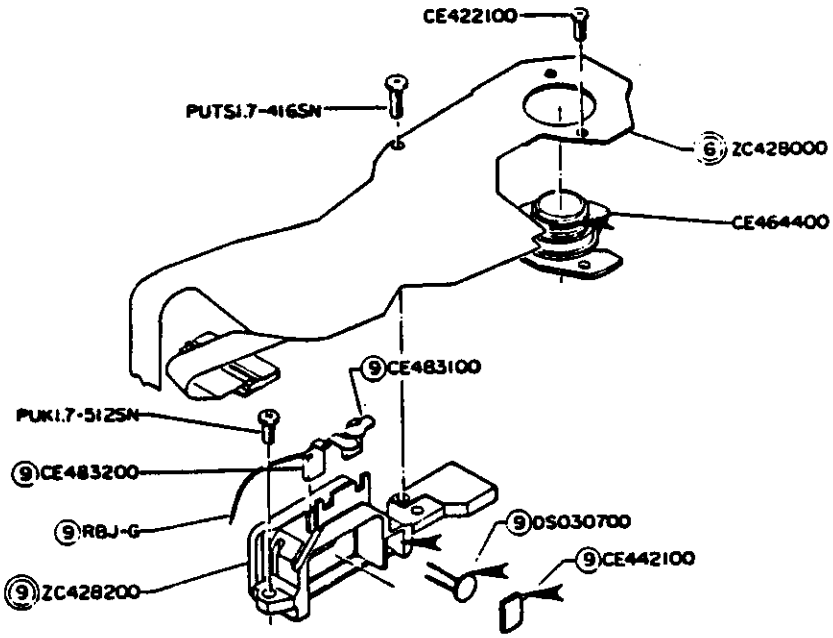
Hamatight

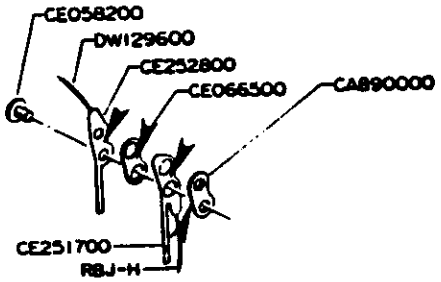


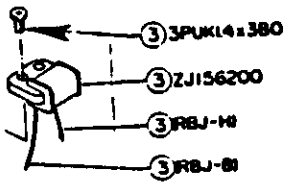
Plyobond

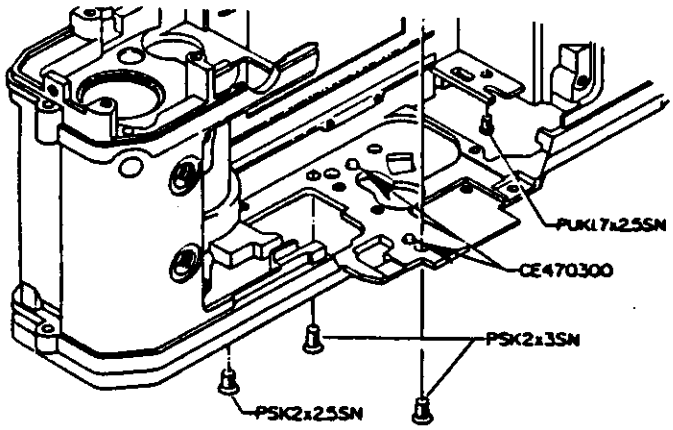

ZC429900
ZJ160400(OMG for Export)
13 CE421900
OLYMPUS
13 82
13 CE420500
13 PUT82x3SN
3PUK14x3SG
PUK17-4105G
22 RBJ-B
13 PUK2x3SN
13 22 ZJ160300
13 CE450500
22 RBJ-D
11 CE473000
ZC164100
ZC182700
ZC182800
ZC182900
ZC183000
11 CE473100
11 ZC501500
11 CE214000
CA937700
CE423600
★ CE422500
CE214300
CE211300
CE423000
★ 28 ZC429300
CE423500
CE211100
CE422900
CE215500
CE472400
28 CE216100
PSK2x3SN
CE216900
CE215600

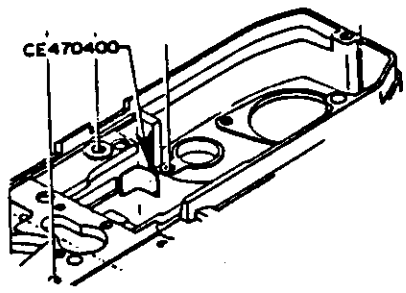
Plyobond

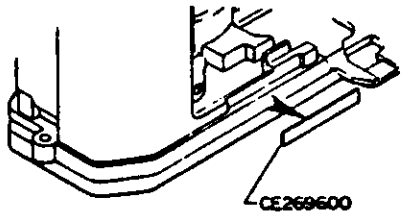

CE422100
PUTSI.7-416SN
⑥ZC428000
CE464400
⑨CE483100
PUKI.7-512SN
⑨CE483200
⑨RBJ-G
⑨ZC428200
⑨OS030700
⑨CE442100


CE058200
DW129600
CE252800
CE066500
CA890000
CE251700
RBJ-H

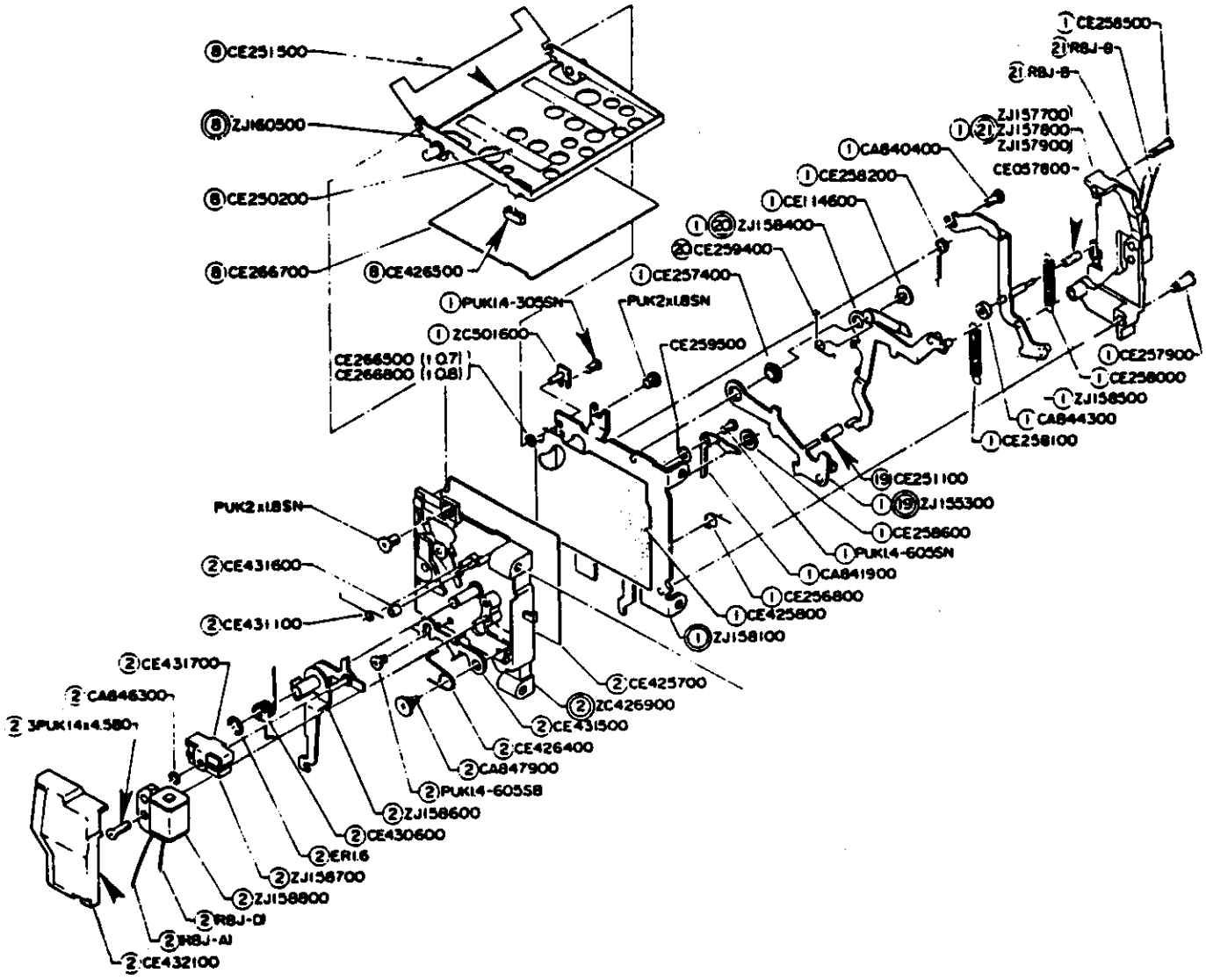

③3PUKI.4x380
③ZJ156200
③RBJ-HI
③RBJ-BI


PUKI.7x25SN
CE470300
PSK2x3SN
PSK2x25SN


CE470400

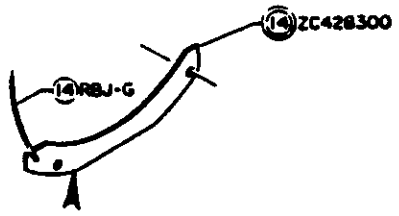

CE269600

Plyobond


(8)CE251500
(8)ZJ160500
(8)CE250200
(8)CE266700
(8)CE426500
(1)PUK14-305SN
PUK2x18SN
(1)ZC501600
CE266500 (107)
CE266800 (108)
CE259500
(1)CE257400
(20)CE259400
(1)(20)ZJ158400
(1)CE114600
(1)CE258200
(1)CA840400
(1)CE258500
(2)RBJ-8
(2)RBJ-8
(1)(2)ZJ157700
(1)(2)ZJ157800
ZJ157900
CE057800
(1)CE257900
(1)CE258000
(1)ZJ158500
(1)CA844300
(1)CE258100
(19)CE251100
(1)(19)ZJ155300
(1)CE258600
(1)PUK14-605SN
(1)CA841900
(1)CE256800
(1)CE425800
(1)ZJ158100
PUK2x18SN
(2)CE431600
(2)CE431100
(2)CE431700
(2)CA846300
(2)3PUK14x4.580
(2)CE425700
(2)ZC426900
(2)CE431500
(2)CE426400
(2)CA847900
(2)PUK14-605S8
(2)ZJ158600
(2)CE430600
(2)ER16
(2)ZJ158700
(2)ZJ158800
(2)RBJ-08
(2)RBJ-A1
(2)CE432100

Sumifulnon FP-81

NOTE: Do not apply Sumifulnon FP-81 to the patterns.



I

DESCRIPTION OF MECHANISMS

I. DESCRIPTION OF MECHANISMS

CONTENTS

[1] MIRROR LOCK MECHANISM ..... I- 1

[2] INDICATIONS IN VIEWFINDER ..... I- 1

1. Shutter Speed ..... I- 1
2. Strobe ..... I- 1
3. Manual Mode ..... I- 1
4. "+" and "–" Exposure Corrections ..... I- 2

[3] RELATIONSHIP BETWEEN T SERIES STROBE AND STROBE INDICATION IN VIEWFINDER ..... I- 2

1. Types of Flickering Indications in Viewfinder ..... I- 2
2. Signal Charts ..... I- 2

[4] POWER SAVING CIRCUIT FOR INDICATIONS IN VIEWFINDER ..... I- 3

[5] SWITCH FOR RE-INDICATION IN VIEWFINDER ..... I- 3

[6] SELF TIMER ..... I- 3

[7] CIRCUIT DIAGRAM ..... I- 4

[8] DESCRIPTIONS OF CIRCUITS ..... I- 5

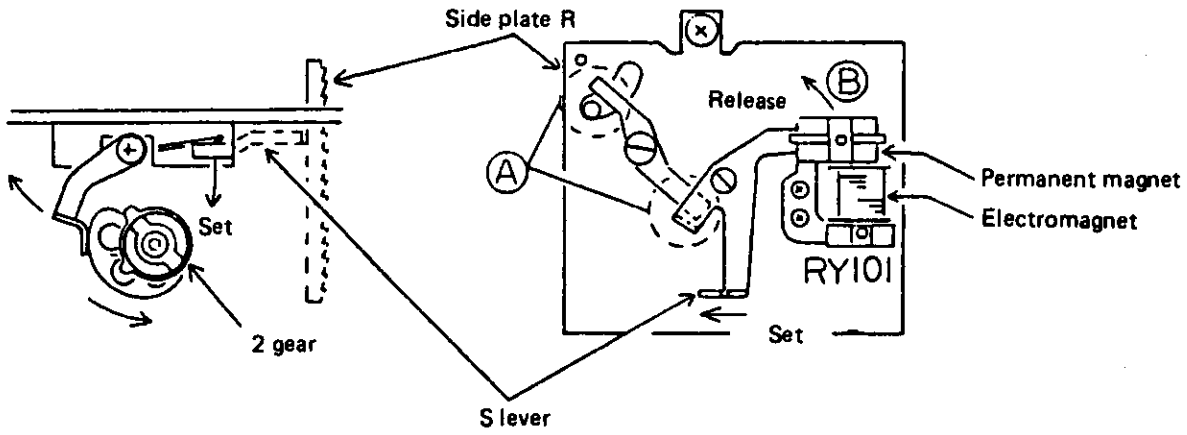
1. Circuit Composition ..... I- 5
2. Descriptions of Individual Parts ..... I- 5
   - 2-1 Connecting Terminals ..... I- 5
   - 2-2 Switches ..... I- 5
   - 2-3 Capacitors ..... I- 7
   - 2-4 Resistors ..... I- 7
   - 2-5 Variable Resistors ..... I- 9
   - 2-6 Transistors I-11
   - 2-7 Diodes I-11
   - 2-8 SP101 ..... I-11
   - 2-9 RYs (Magnets) I-11
   - 2-10 Photo Sensors I-12
   - 2-11 LEDs I-12
   - 2-12 Printed Circuits I-13

3. Descriptions of Circuits I-14
3-1 AUTO Circuit I-14
3-2 X Time Circuit I-15
3-3 Manual Time Circuit and Bulb Circuit I-16
3-4 Bulb Circuit I-16
3-5 Self Timer Circuit I-17
3-6 Mirror Lock Circuit I-18
3-7 Battery Checker Circuit I-19
3-8 Circuits Related to Strobe I-20
3-9 Indication Time-Constant Circuit I-21
3-10 CdS Cell Circuit I-22
3-11 "+" and "–" Exposure Correction Indication Circuit I-22
3-12 MANUAL Indication Circuit I-23
3-13 Connections of Selector Switch I-23

[1] MIRROR LOCK MECHANISM

When the shutter cannot operate normally due to a trouble such as defective battery, the shutter is not locked directly but the mirror is locked to make the shutter inoperative.

For this purpose, an electromagnet and a permanent magnet (combination magnet) is assembled with ZC426900 Side plate R to which the movable mirror is attached.



Operating sequence

1) The mirror lock mechanism is set a shown above by the cam of the 2 gear to lock the mirror.
2) When magnet RY101 is electrically energized, the S lever is disengaged in the B direction to release the mirror lock.
(RY101 generates magnetic force of the same polarity as that of the permanent magnet. When it is electrically energized, it generates repulsive force to disengage the S lever.)

[2] INDICATIONS IN VIEWFINDER

1. Shutter Speed

Shutter speed is indicated not analogically with an indicator pointer but digitally on lit LEDs. "OVER" is indicated when a time exceeding 1/1000 sec. is required for photographing.

2. Strobe

When T Series Strobe is mounted on the shoe, the following two types of signals are indicated.

2-1 Completion of strobe charging . . . . . Lit

2-2 Control of strobe light intensity . . . Flickering

3. Manual Mode

"MANU" is indicated when the manual mode or B (bulb) mode is selected.

"Indications in Viewfinder"

Indication of MANUAL mode	MANU
Indication of strobe mode	60
OVER	OVER
1/1000 sec.	1000
1/500 sec.	500
1/250 sec.	250
1/125 sec.	125
1/60 sec.	60
1/30 sec.	30
1/15 sec.	15
1/8 sec.	8
1/4 sec.	4
1/2 sec.	2
1 sec. and UNDER	1
Compensation Marker	+−

4. "+" and "–" Exposure Corrections

"+" or "–" is indicated when the ASA dial is turned.

[3] RELATIONSHIP BETWEEN T SERIES STROBE AND STROBE INDICATION IN VIEWFINDER

1. Types of Flickering Indications in Viewfinder

1-1 Signal flickering in synchronization with strobe flashing
This signal indicates a condition where a long time is required for recharging the main capacitor after flashing of the strobe.

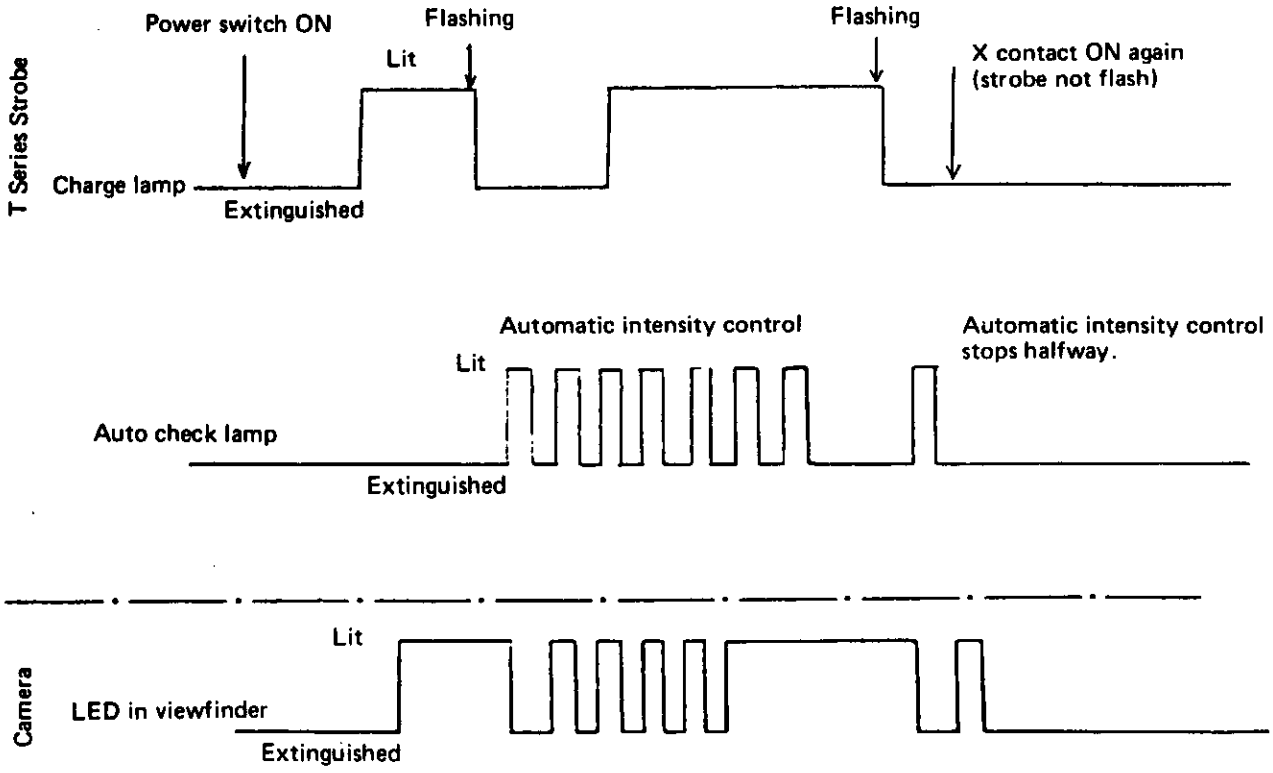
1-2 Signal flickering for about 1.5 sec.
This signal indicates a condition where light intensity of the strobe is too low and the strobe charge lamp comes on immediately after flashing of the strobe.
First, the LED in the viewfinder flickers for about 1.5 sec. then, it stays lit to indicate charging condition.

1-3 Flickering signal terminating within 1.5 sec.
When the strobe is set so as to flash twice successively, it may not flash upon releasing the shutter if the main capacitor is not charged sufficiently.
In such a case, the signal stops flickering upon releasing the shutter.

NOTE:

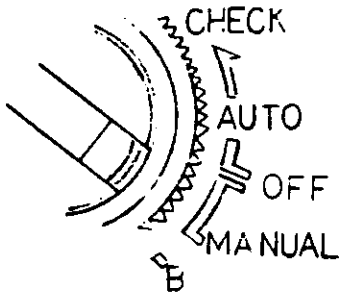
- In the case described above, the auto check lamp for the strobe also stops flickering.
- The lamp may go out regardless of normal flashing when the switch is turned ON twice due to chattering of the X contact. (Note that the same symptom is caused by chattering of the contact which functions to open the X contact circuit after releasing the shutter.)

2. Signal Charts



[4] POWER SAVING CIRCUIT FOR INDICATIONS IN VIEWFINDER

In order to prevent the battery from discharging in a short time, OM20 comprises a circuit which automatically extinguishes the indicating LEDs in about 1.5 minutes even when the indication switch is kept turned ON in the viewfinder.

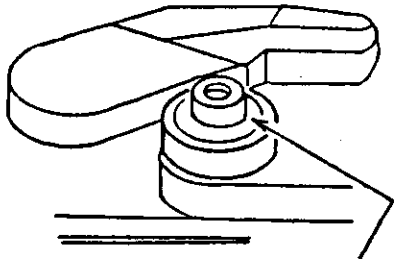


Indication switch in viewfinder

[5] SWITCH FOR RE-INDICATION IN VIEWFINDER

This switch is attached to the release button.
When the power saving circuit is actuated to extinguish the LED, the indication is read once again by depressing the release button lightly for about 0.3 sec.

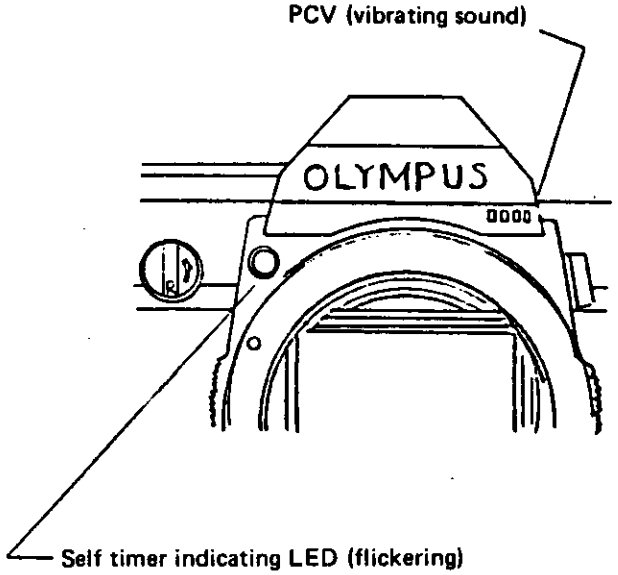
- The circuit is opened automatically about 1.5 minutes after the indication.
- Even when the release button is kept depressed, the circuit is opened in about 1.5 minutes.
- The indication is read once again when the selector dial is turned to a position other than OFF.



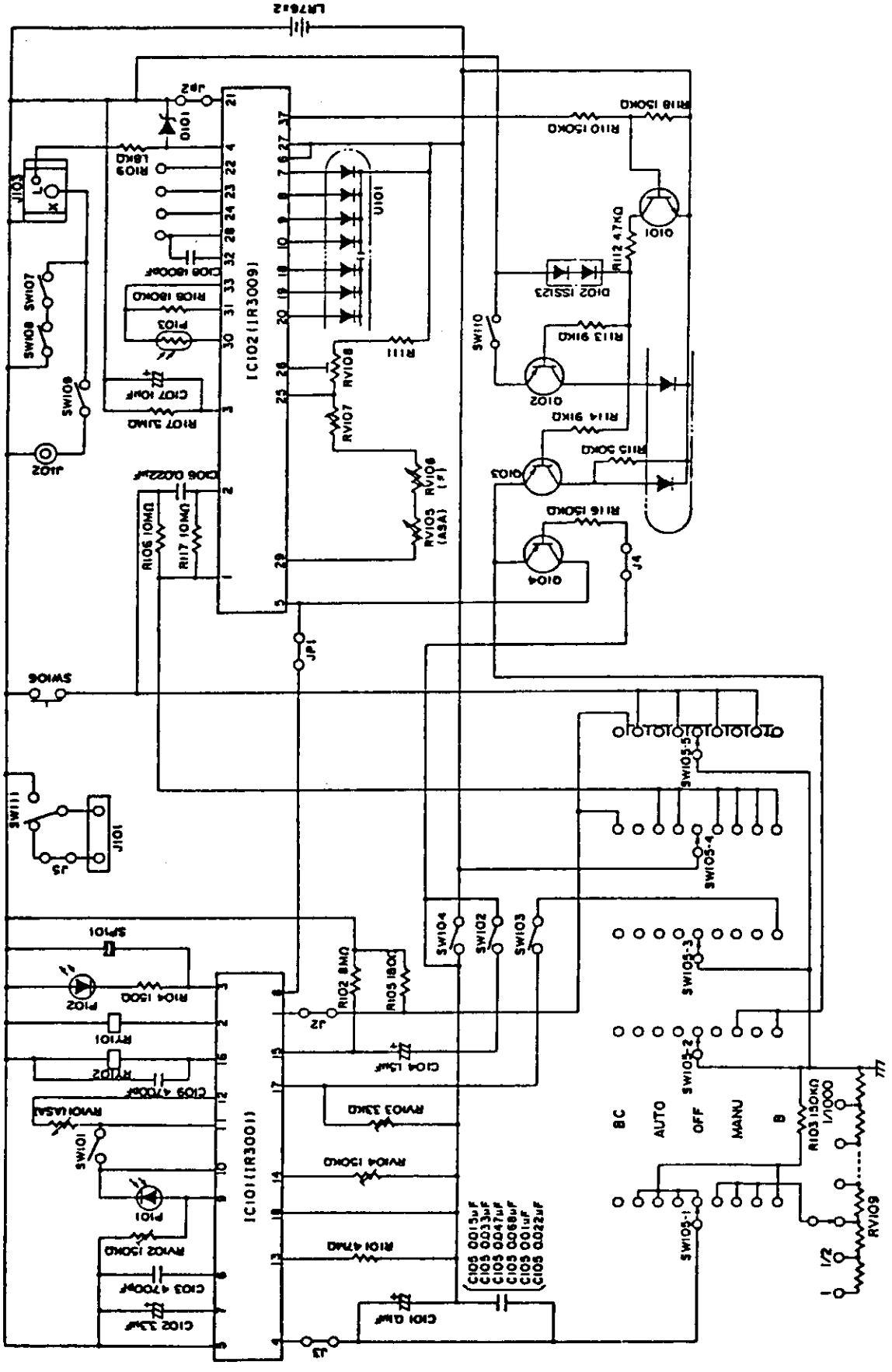
Switch for re-indication in viewfinder

[6] SELF TIMER

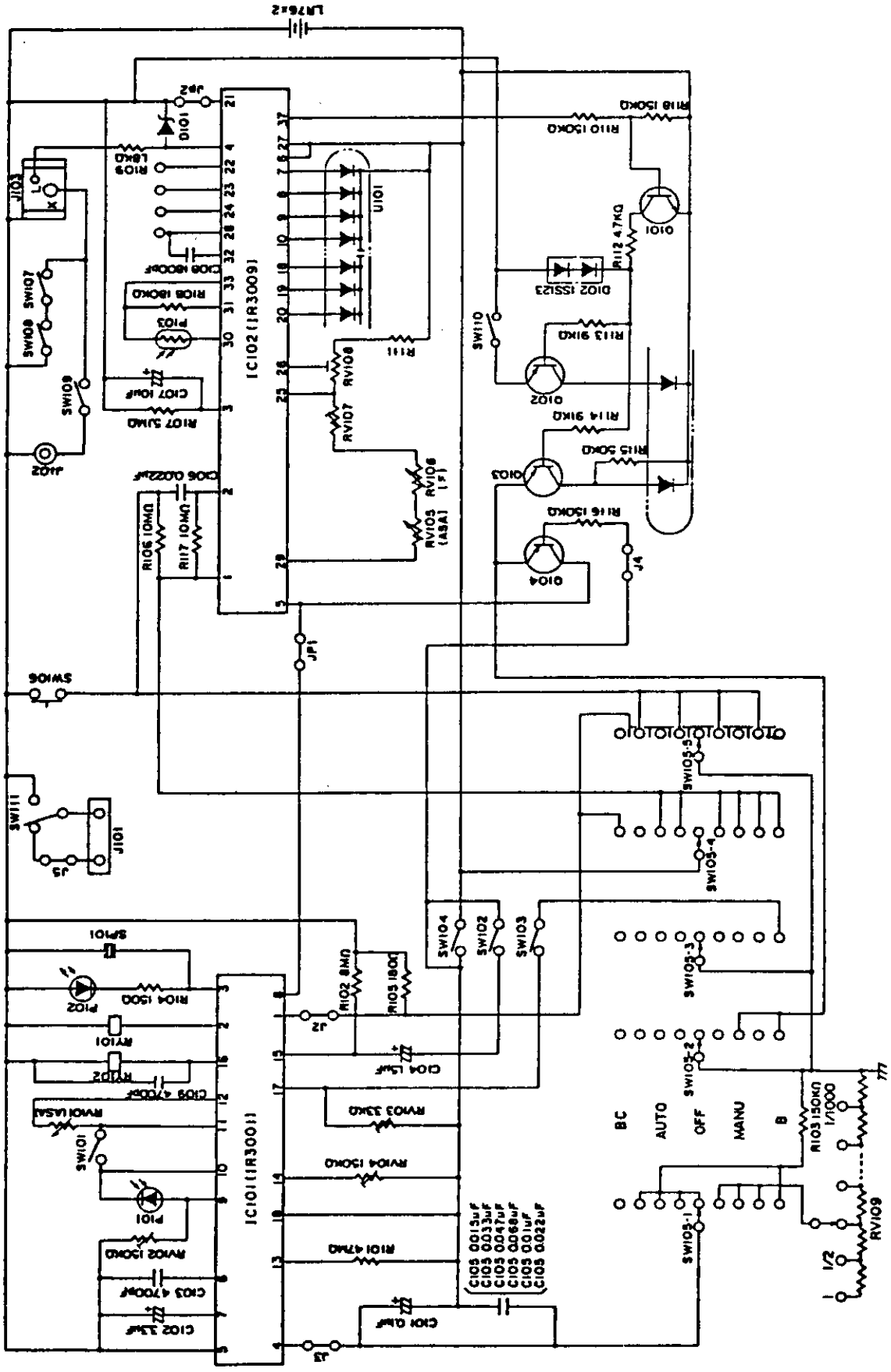
Self timer time is controlled by an electrical circuit. When the self timer lever is turned in the direction indicated by arrow and the release button is depressed, power is not supplied to the mirror lock releasing magnet (RY101) and the mirror is locked. After lapse of the self time, the magnet is energized to release the mirror lock and the shutter is released.
In this while, the self timer indicating LED flickers and vibrating sound is emitted from the location shown below.



[7] CIRCUIT DIAGRAM



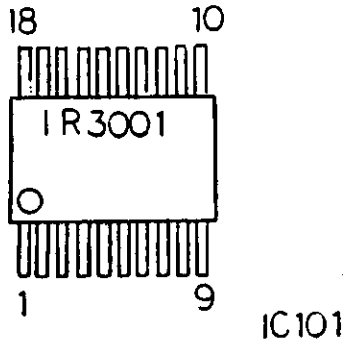
[7] CIRCUIT DIAGRAM



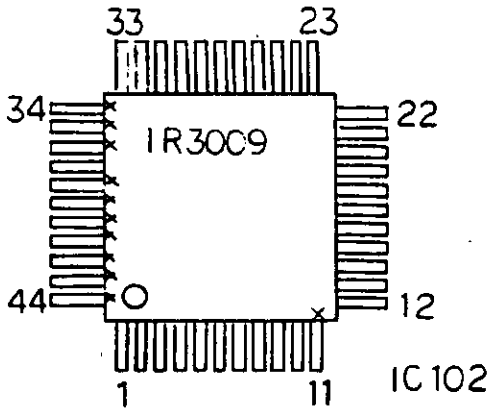
[8] DESCRIPTIONS OF CIRCUIT

1. Circuit Composition

1-1 The circuit comprised in OM20 is roughly classified into a shutter circuit and indication circuit for viewfinder, each of which is designed as an integrated circuit soldered onto a base plate.
The shutter circuit is designed as IC101 (IR3001) and the indication circuit for viewfinder as IC102 (IR3009).



IC designed as shutter circuit



IC for indicating shutter speeds and strobe mode in the viewfinder. Marks "X" indicate terminals which are actually unused.

1-2 Circuits for indicating"+" and "—" exposure corrections as well as LED for indicating manual mode are added as subsidiary circuits for the indication circuit.

2. Descriptions of Individual Parts

2-1 Connecting terminals

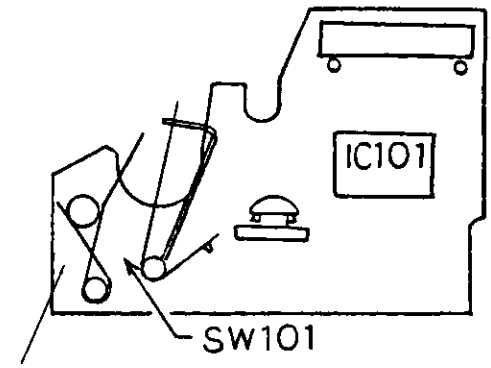
1) J101 (contact for film winder)
Contact of the circuit for controlling the film winder and Motor Drive.

2) J102 (synchronous terminal)
Strobe jack for connecting a cable with no direct contact. The synchronous contacts are of X type only.

3) J103 (shoe)
Terminals for flash and strobe indication in the viewfinder.
The synchronous contacts are of X type only.

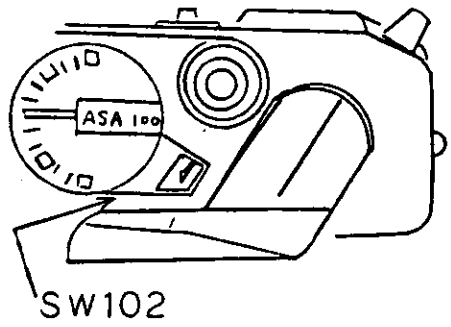
2-2 Switches

1) SW101 (trigger switch)
This switch is arranged on the JM base plate, and turned ON by charging the shutter and turned OFF by releasing the shutter to start measuring exposure time.

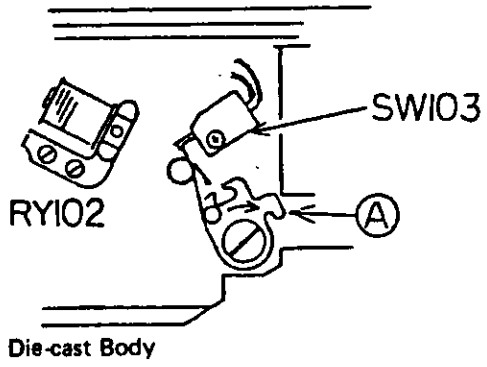


JM Base plate

2) SW102 (self switch)
This switch is turned ON to select the self mode by turning the lever (located under the ASA dial on the top cover) in the direction indicated by arrow.

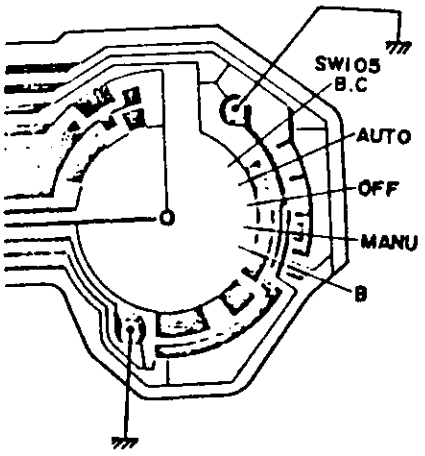


3) SW103 (bulb switch)
After the JM base board is detached, this switch is exposed to view (fixed with a screw on the die casting of the camera body). It is turned ON by depressing the release button (part A is turned in the direction indicated by arrow) and turned OFF by releasing the button.
While this switch is turned ON, MG (RY102) is kept in energized condition to set the shutter at its open position. (When the selector dial is set at B, terminal No. 7 on IR3001 is continuous to ground through SW103.)

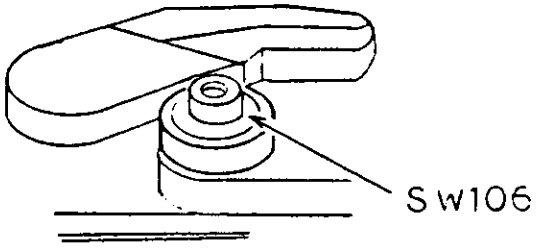


4) SW104 (main switch)
This switch is interlocked with the stop lever which is used for stopping down the automatic stop for the lens, and turned ON by stopping down operation. This switch is used for operating the shutter by energizing the shutter circuit.

5) SW105 (selector dial)
This switch is arranged under the R knob.
- o OFF:
  Indication disappears in the viewfinder. (Shutter speed in AUTO mode)
- o CHECK:
  For checking the battery. (Battery OK when the LED lights and vibrating sound is heard.)
- o MANUAL: Manual mode is selected.
- o AUTO: AUTO mode is selected.
- o B: Bulb mode is selected.



6) SW106 (indication start switch)
By depressing the release button about 0.3 mm, SW106 is turned ON and terminal No. 2 on IR3009 is continuous with ground to start indication in the viewfinder.
When SW105 connected in parallel to SW106 is set at a position other than OFF and CHECK, indication starts in the viewfinder.



7) SW107 (OFF switch for X contact)
This switch is interlocked with the movable mirror. It is turned ON by lifting up the mirror, and turned OFF by setting the mirror at its DOWN position. (Similar to the FP contact used in OM-2).
SW107 is connected in series with SW108 described below. After the shutter is released, the circuit of the X contact is to be disconnected by using SW107 since SW108 is kept ON.

8) SW108 (X contact)
This switch is interlocked with the brake for the 1st curtain of the shutter. It is turned ON immediately after the 1st curtain completes travelling and the shutter is fully opened (1/60 sec or shorter). (Same as the operation in OM-1 or OM-2.)

9) SW109 (for X contact synchronous terminal)
This switch is provided exclusively for the synchronous terminal to prevent electrical shock hazard in cooperation with SW107 and SW108 for the shoe contacts.

10) SW110 (for "+" and "—" exposure corrections)
When the ASA dial is turned for exposure correction, this switch functions to light "+" or "—" LED in the viewfinder.

11) SW111 (for motor drive)
This switch is turned in conjunction with the movable mirror. It is turned to the winding side by setting the mirror at its down position or the brake side (body ground side by setting the mirror at its up position. (Same as the switch used in OM-1 or OM-2.)

2-3 Capacitors

1) C101 (for manual time)
This capacitor is soldered to the flexible printed circuit on the top of the pentagonal prism, and creates X time and manual time.

2) C102 (for oscillation at 2 Hz)
C102 is soldered to the JM base plate, and creates LED flickering time intervals during operation of the self timer.

3) C103 (for oscillation at 3 kHz)
C103 is soldered to the JM base plate and creates vibrating sound during operation of the self timer (and battery check).

4) C104 (for self timer)
Charging of this capacitor starts upon releasing the shutter in the self timer mode. The shutter is released when it is charged up to approx. 1.8 V.
The time required to reach 1.8 V is set at the self timer time.
The capacitor is soldered to the JM base plate.

5) C105 (for manual time)
Six types of capacitors C105 are used in parallel with C101 for matching manual time.

6) C106 (for starting indication)
This capacitor is soldered to the flexible printed circuit arranged on the top of the pentagonal prism, and functions to flow current for indication in the viewfinder only immediately after SW105 or SW106 is turned ON.
When SW105 or SW106 is kept ON, the time constant circuit built in the next stage starts operating since current does not flow after C106 is charged up. The indication disappears in 90 seconds accordingly.

7) C107 (for time constant)
C107 is soldered in the vicinity of the dual variable resistors on the flexible printed circuit, and creates 90 seconds for indication in the viewfinder.
Charging of C107 starts by turning ON the SW106 switching dial and completes by the time when C106 is charged completely. C107 functions as a discharging circuit after C106 has been charged up. This discharging time is used as "90 seconds" described above.

8) C108 (for preventing oscillation)
This capacitor is soldered to the flexible printed circuit on the stop of the pentagonal prism, and functions to prevent IC102 from oscillating.

9) C109 (for stabilizing high shutter speed)
C109 is connected in parallel with RY102 for exposure. Since high shutter speed is made unstable by counter electromotive force while RY102 is deenergized, C109 is used for absorbing the counter electromotive force.

2-4 Resistors

1) R101 (bias resistor)
This resistor is printed to the JM base plate to reduce input current to the comparator arranged on IC101.

2) R102 (self timer resistor)
R102 is also printed to the JM base plate to determine self time by its resistance in combination with that of C104.

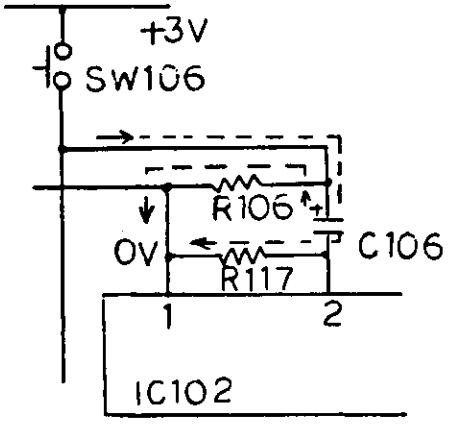
3) R103 (for X time)
This resistor is printed to the JM base plate and used for creating X time in combination with R103.

4) R104 (for LED)
Soldered to the JM base plate and used for adjusting brightness of the LED during self timer operation or battery check.

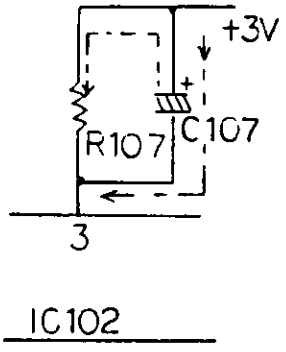
5) R105 (used in place of the combination magnet)
Soldered to the flexible printed circuit located on the top of the pentagonal prism.
During battery check, it is impossible to flow current to the combination magnet, and R105 having resistance nearly equal to that of the combination magnet is used instead.

(If the combination magnet is energized, the magnet plate is separated, making the mirror lock ineffective and slef timer unusable. For this reason, the combination magnet is not energized during battery check.)

6) R106 (for discharging circuit)
R107 (for charging circuit)
Both R106 and R107 are soldered to the flexible printed circuit located on the top of the pentagonal prism. When SW106 is turned ON, current flows from C106 to R117 and charges C107.
R117 is used to form this charging circuit.
When SW106 is turned OFF, C106 discharges through R116. R116 is used to form this discharging circuit.



7) R107 (for discharging circuit)
R107 is soldered to the flexible printed circuit located on the top of the pentagonal prism.
When SW105 is turned ON, current flows from terminal No. 3 on C102 to C107 to charge the latter.
After completion of the discharge, a transistor in IC102 is switched to start discharging C107.
R107 is used to form this discharging circuit.

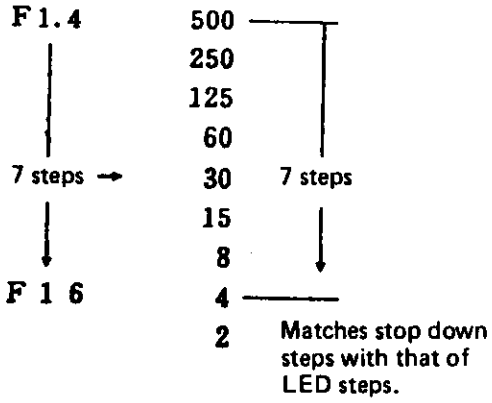


8) R108 (for temperature compensation)
R108 is soldered to the flexible printed circuit located on the top of the pentagonal prism and has resistance nearly equal to that of CdS cell at BV9.5.
R108 cooperates with IC102 so as to maintain exposure indication unchanged regardless of temperature variation.

9) R109 (for current control)
This resistor is soldered to the flexible printed circuit located on the top of the pentagonal prism.
When the synchronous contact is turned ON, a high current flows to terminal No. 4 on IC102 and may cause malfunction. R109 controls the current to prevent such malfunction.

10) R110 (for current control)
R110 is soldered to the flexible printed circuit located on the top of the pentagonal prism. It functions to control base current of Q101 for protection.

11) R111 (for matching stop resistance)
Arranged beside RV108 of the dual variable resistors which are soldered to the flexible printed circuit located on the top of the pentagonal prism. R111 functions to match number of stop setting steps with that of indication steps in the viewfinder.



12) R112 (for voltage control)
Cooperates with D102 to control voltage applied to the LED so that light intensities of the "+" "—" exposure correction indicating LED and manual mode indicating LED are kept constant.

13) R113 (for driving ± indicator)
For driving the ± correction indicating transistor (Q102) while SW110 (PM SW) is turned ON.
This resistor functions to keep LED current at approx. 1 mA.

14) R114 (for driving MANUAL indicator)
For driving MANUAL indicating transistor (Q103) in the MANUAL mode.

15) R115 (for preventing malfunction of MANUAL indicator)
Resistor forming a bypass from the MANUAL indicating LED to prevent the MANUAL indicator from being lit erroneously by reverse current from Q104 when the strobe is turned ON in the AUTO mode.

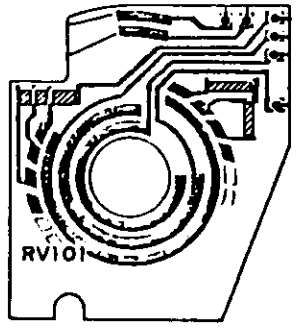
16) R116 (for switching between MANUAL and BULB mode)
When the main switch is turned ON with SW105–2 (R switch) set at MANU or B, R116 drives a transistor which changes over the switching circuit in IR3001.

17) R117 (for indication trigger limiter)
For discharging C106 so that indication disappears in the viewfinder even when the release button is kept depressed.

18) R118 (for preventing malfunction of indicator)
For preventing the MANU and ± indicators from being lit erroneously in the OFF mode or even after 90 sec in highly humid condition. (Since Q101 may be lit due to leak current flowing to terminal No. 3 of IR102, R118 prevent current from flowing to base of Q101.)

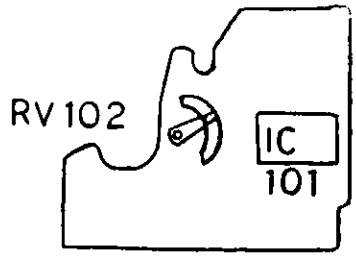
2-5 Variable Resistors

1) RV101 (ASA variable resistor for AUTO mode)
ASA sensitivity resistor for AUTO mode and printed to A base plate located under the ASA dial.



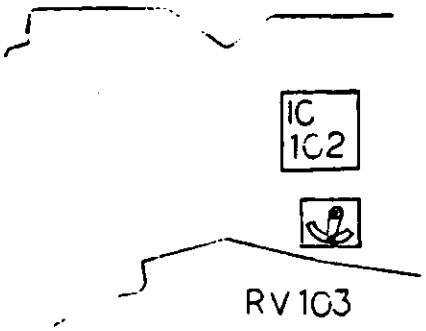
A base plate

2) RV102 (for adjusting mirror lock voltage)
RV102 is printed to the JM base plate.
When power supply voltage becomes lower than 2 V, RV102 is used for adjusting mirror lock voltage to set the mirror in locked condition.

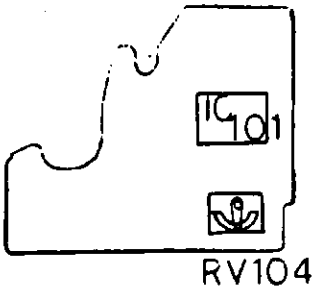


JM base plate

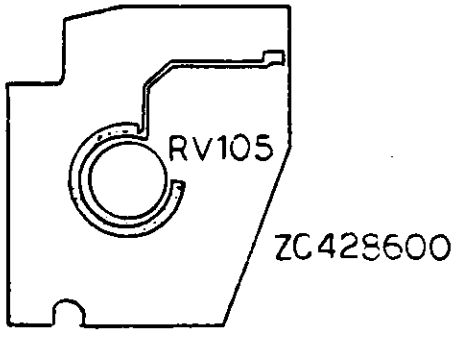
3) RV103 (for adjusting EE level)
RV103 is soldered to the flexible printed circuit located on the top of the pentagonal prism and is used for adjusting EE level in the AUTO mode.



4) RV104 (for adjusting offset)
RV104 is printed to the JM base plate and is used for adjusting offset of the comparator in the AUTO mode.

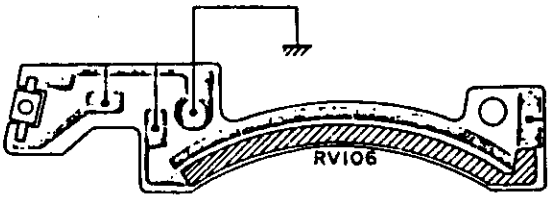


5) RV105 (ASA resistor for indication)
RV105 is printed to the A base plate located under the ASA dial and is used for adjusting ASA sensitivity for indication in the viewfinder.



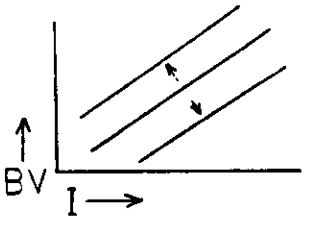
A base plate

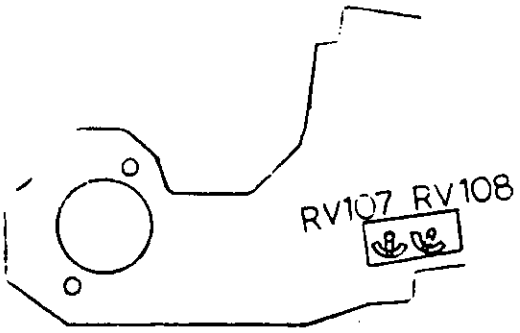
6) RV106 (F resistor)
RV106 is printed to the F base plate located under the connecting ring.
It converts each lens stop value into resistance for interlocking the stop ring with the LED in the viewfinder.



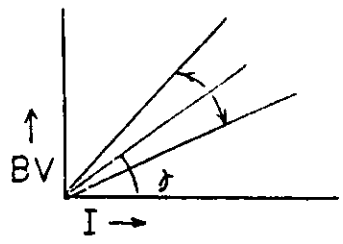
FF base plate

7) RV107 (for level adjustment)
One of the dual variable resistors which are soldered to the flexible printed circuit.
It is used for adjusting luminance of the indicating LEDs in the viewfinder.
(It shifts ignition level of all the LEDs parallelly.)

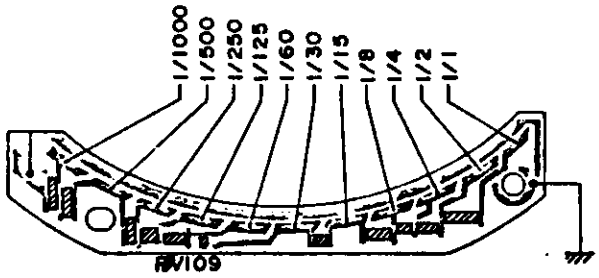




8) RV108 (for gamma adjustment)
Arranged beside R107 as shown above.
RV108 is used for adjusting current variation (gamma) relative to luminance variation of CdS cell.



9) RV109 (for manual time)
Interlocked with the shutter dial.
Since resistance varies depending on shutter speed, it creates manual time in cooperation with C101 and C105.



Time	Resistance
1000	6.384 K Ω
500	12.77
250	25.53
125	51.07
60	119.0
30	204.3
15	408.6
8	817.1
4	1630.0
2	3270.0
1	6540.0

2-6 Transistors

1) Q101 (for constant current)
For preparing a constant current for ± exposure correction indicator and manual mode indicating LED.

2) Q102 (for driving ± exposure correction indicating LED)
When SW110 is turned ON, Q102 is made conductive to light the ± exposure correction indicating LED.

3) Q103 (for driving manual mode indicating LED)
When selector dial SW105 is set at MANUAL or B, Q103 is made conductive to light the manual mode indicating LED.

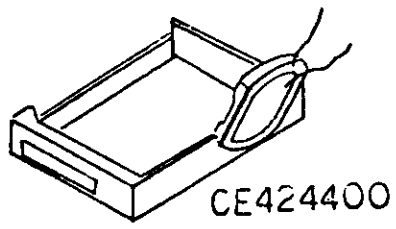
4) Q104 (for switching manual mode)
When the main switch is turned ON with selector dial SW105 set at MANUAL or B, Q104 is made conductive to flow +3 V to terminal No. 8 on IC101.

2-7 Diodes

1) D101 (zener diode for protecting IC)
Adopted for protecting the IC from being broken by noise when T Series Strobe are used.

2) D102 (for constant voltage)
Cooperates with Q101 and R112 to prepare a constant voltage for protecting the ± exposure correcting indicating LED and manual mode indicating LED from influence due to power supply voltage variation.

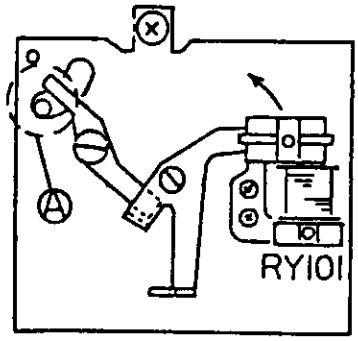
2-8 SP101 (piezoelectric element)
Assembled in the location shown below.
This element elongates and contracts depending on voltage level, and produces sound when voltage is applied intermittently to it.
The sound is adjusted to approx. 3 kHz by capacitor C103.



2-9 RYs (magnets)

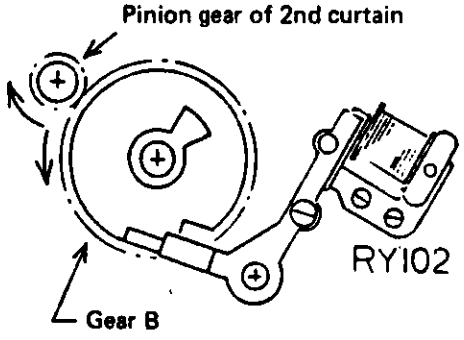
1) RY101 (for releasing)
RY101 is assembled on side plate R. When it is attempted to release the shutter while the magnet is kept in deenergized condition, it functions to lock the mirror for preventing the shutter from being released.
When the magnet is energized, the mirror is in movable condition and the shutter can be released.

(Since the magnetic field produced by RY101 has the same polarities as those of the magnet plate (permanent magnet), it is separated by energizing the electro-magnet (combination magnet).



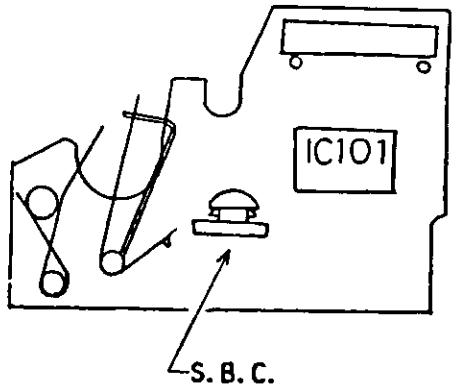
When mirror lock is energized at location A, the magnet plate is separated in the direction indicated by arrow and the mirror lock is released.

2) RY102 (for exposure control)
RY102 is fixed to the S base plate and sopted for fixing the 2nd curtain. It fixes the 2nd curtain while it is energized, and allows the curtain to travel while it is deeenrgized.

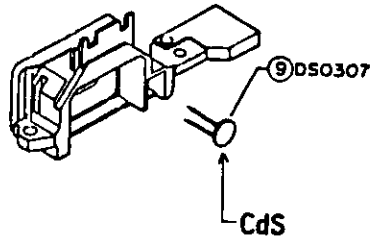


2-10 Photo Sensors

1) P101 (S.B.C.)
P101 is located at the center of the JM base plate and used as sensor for the auto circuit.

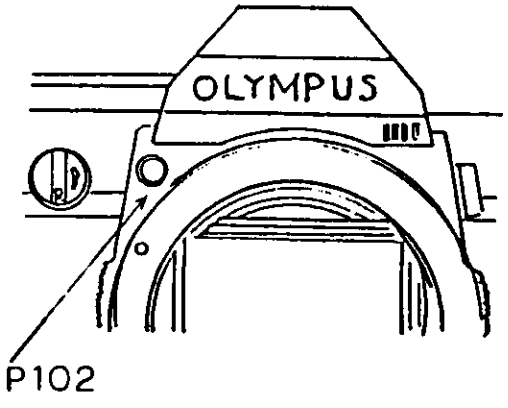


2) P103 (CdS)
Arranged on the left side of the eyepiece frame. P103 is a sensor for indication in the viewfinder and equipped with two lead wires only.
However, matching of high and low luminance can be performed by RV107 and RV108.



2-11 LEDs

1) P102 (for battery check and self timer operation)
P102 is arranged on the front plate as shown below. It flickers twice per second during self timer operation, or stays lit during battery check.

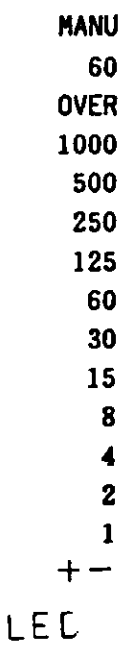


2-12 Printed circuits

1) PC101 (JM base plate)
   Base plate made of ceramic on which the exposure control circuit, etc. are arranged.
2) PC102 (FPM base plate)
   Flexible base plate made of polyimide on which the indication circuit, etc. are arranged.
3) PC103 (ASA base plate)
   Base plate made of ceramic on which resistors for indication in the viewfinder and exposure control are printed.
4) PC104 (FE base plate)
   Base plate made of epoxy resin on which stop resistors are printed.
5) PC105 (SD2 base plate)
   Base plate made of ceramic on which shutter resistors are printed.
6) P106 (LEDs for indicating shutter speeds)
   Flexible base plate on which LEDs for indicating shutter speeds ± exposure corrections, manual mode, OVER and flash mode in the viewfinder, are soldered sellectively.

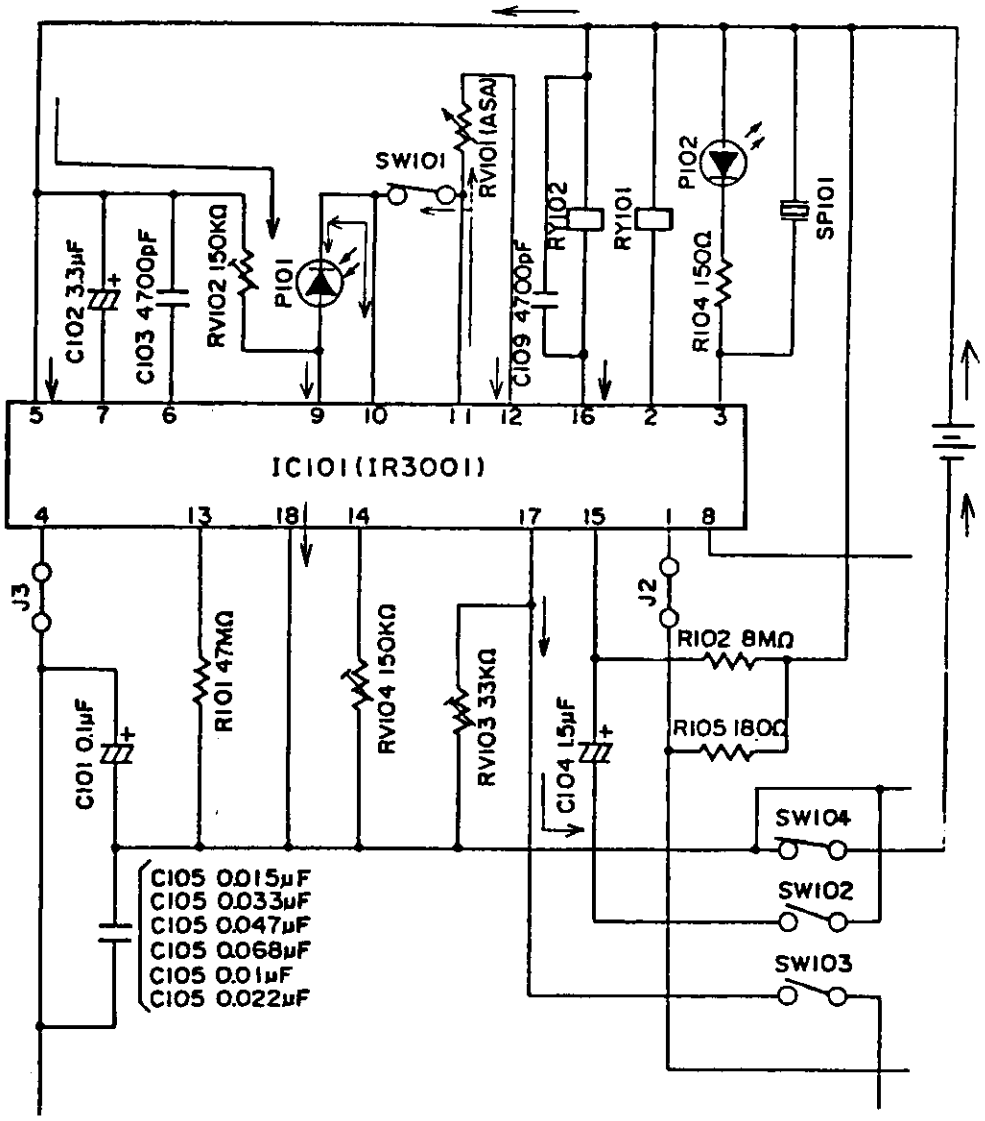
   OVER indicating LED
   Lights when shutter speed exceeds the maximum level of 1/1000 sec.

Flash mode indicating LED
When the camera is equipped with T Series Strobe use with it, the LED provides two types of indications listed below:
(1) Lit – Completion of strobe charging
(2) Flickering – Control of light intensity from strobe



3. Descriptions of Circuits

3-1 AUTO Circuit



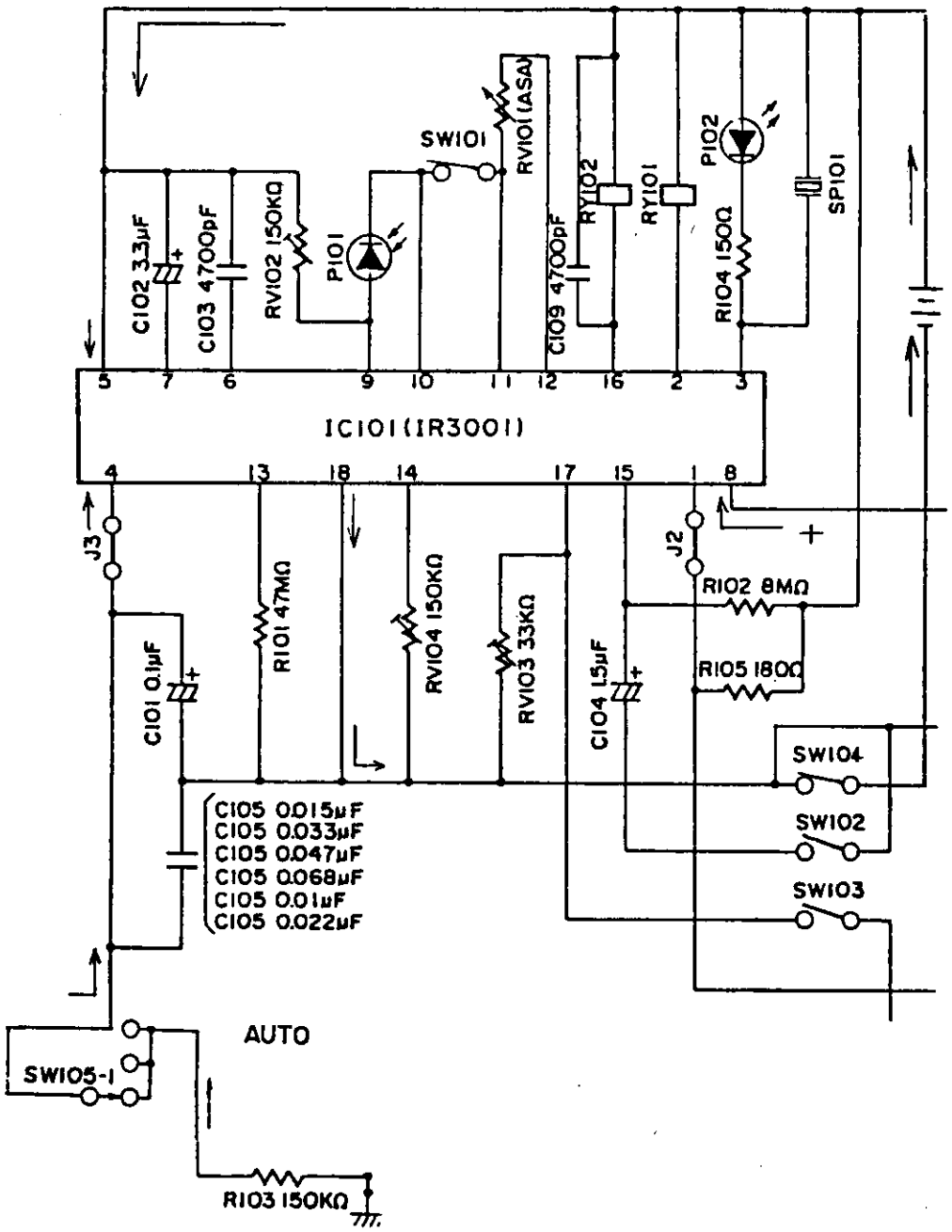
(1) By the time when trigger switch (SW101) is turned OFF after the shutter is released and main switch (SW104) is turned ON, the section between A (anode) side and K (cathode) side of S.B.C. is charged from terminal No. 11 through SW101 (since K side of S.B.C. is set at lower potential after photographing).

(2) When the 1st curtain travels and SW101 is turned OFF, S.B.C. flows current to start discharging. Potential gradually lowers on K side of S.B.C. accordingly. This lowers potential on terminal No. 10. The lowering speed is proportional to light intensity.

(3) On the other hand, terminal No. 12 is connected through RV101 and is kept at a lower potential than terminal No. 10 from the initial stage. While terminal No. 12 is kept at lower potential, RY102 is energized and fixes the 2nd curtain.

(4) When S.B.C. discharges to set terminals No. 12 and No. 10 at the same potential, terminal No. 16 is set at 3 V and RY102 is deenergized to close the shutter.

3-2 X Time Circuit



(1) When SW105 is set at AUTO, S.B.C. and RV101 are disconnected from the circuit, whereas C101 and C105 are connected to R103. (The manual circuit is established by applying voltage to terminal No. 8).

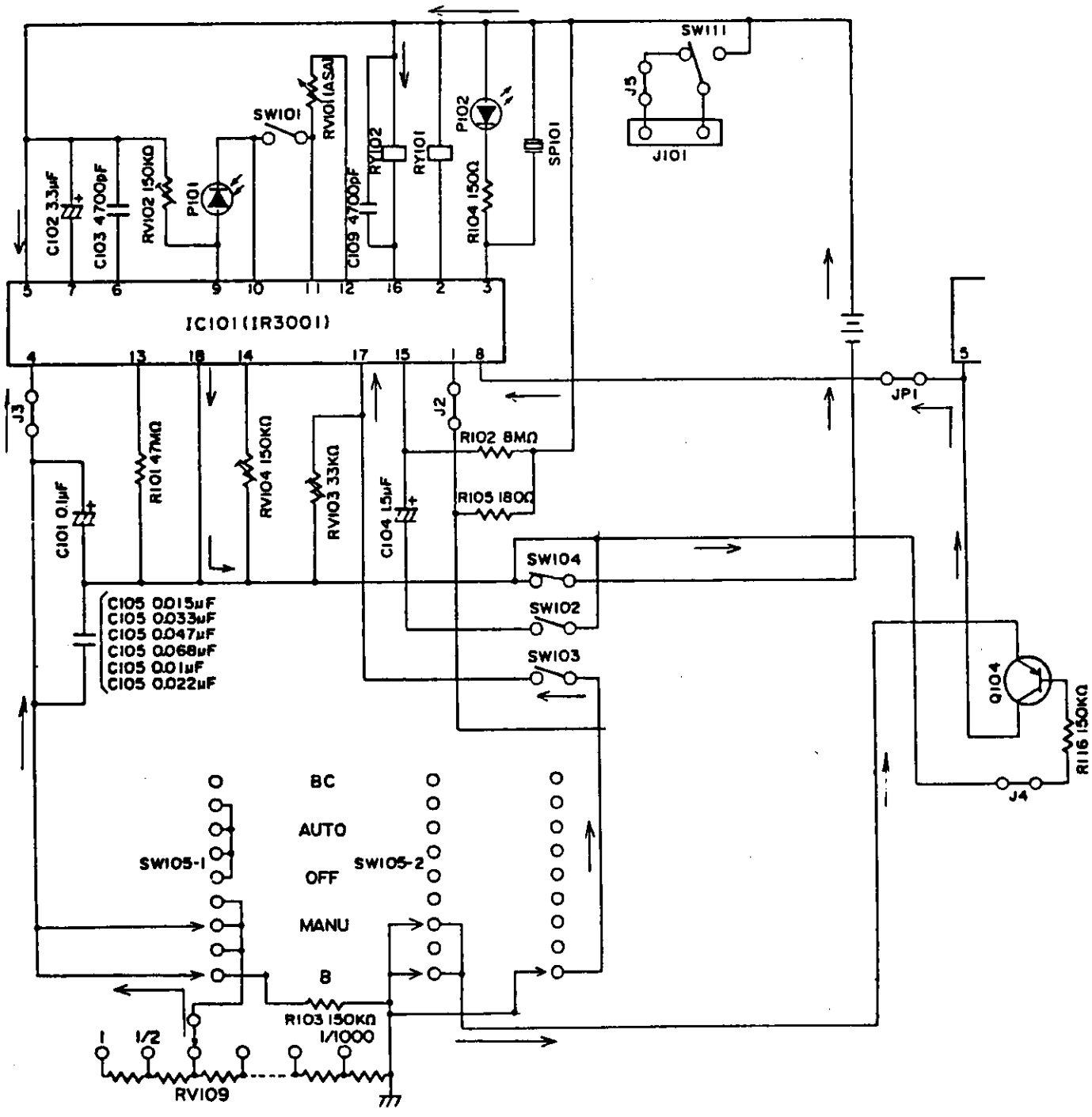
(2) Till the time when SW101 is turned OFF after the shutter is released and SW104 is turned ON, terminal No. 4 is connected to terminal No. 18 to keep C101 and C105 in discharging condition.

(3) While C101 and C105 are kept in discharging condition, RY102 is set energized condition to fix the 2nd curtain.

(4) When the 1st curtain travels and SW101 is turned OFF, terminal No. 4 is insulated from terminal No. 8 to start charging C101 and C105 through R103.

(5) When C101 and C105 are charged until terminals No. 10 and No. 4 are set at the same voltage, terminal No. 16 is set at 3 V and RY102 is deenergized to close the shutter. This charging lasts about 1/45 sec.

3-3 Manual Time Circuit and Bulb Circuit

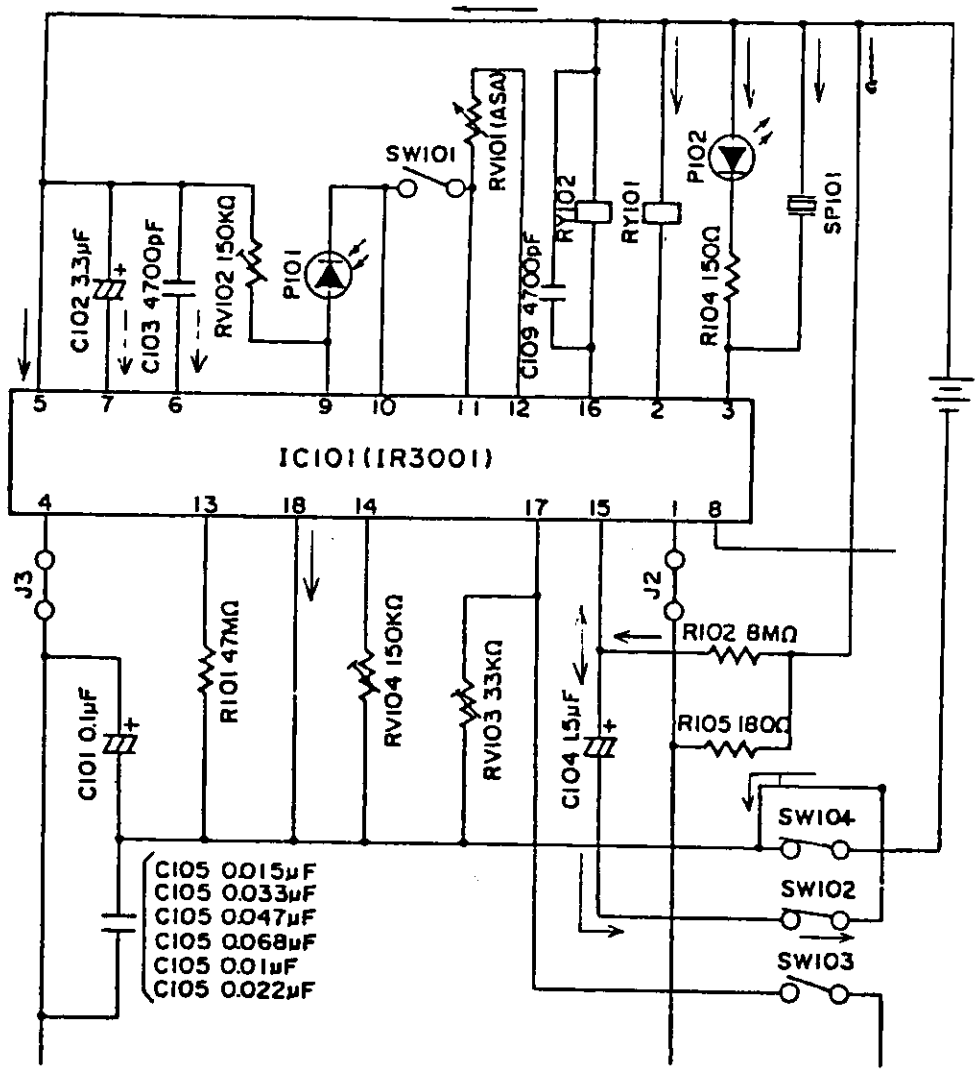


(1) When SW105 is turned ON, C101 and C105 are connected to RV109.
By turning ON the main switch, Q104 is made conductive and 3 V is applied to terminal No. 8 of IC101 to establish the manual circuit in IC101.

(2) When SW103 is turned ON and 3 V is applied with the manual circuit established in IC101, RY102 is energized to fix the 2nd curtain and the shutter is opened.

(3) By releasing the release button, SW103 is turned OFF to close the shutter.

3-5 Self Timer Circuit

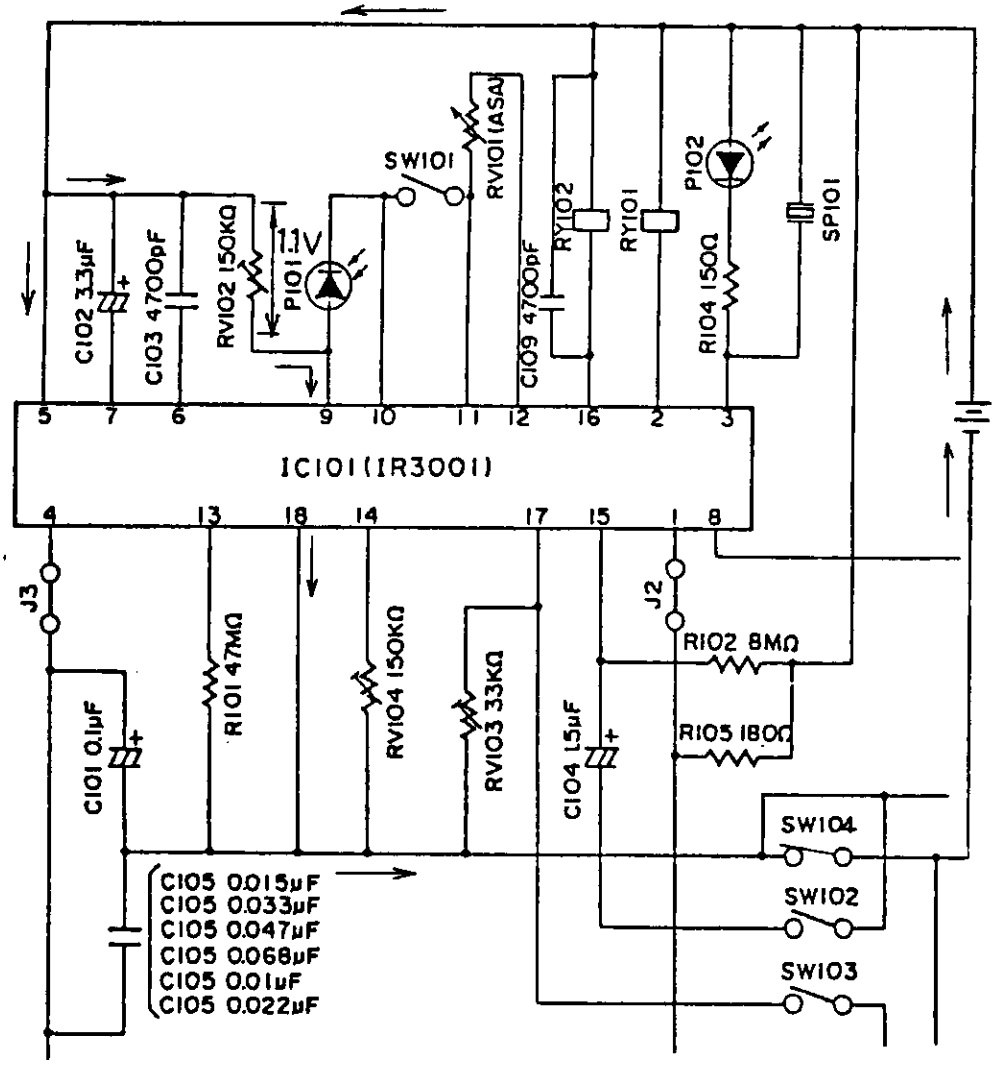


(1) When SW102 (Self) is turned ON and the shutter is released, terminal No. 2 is set at 3 V and RY101 is deenergized to lock the mirror at the initial condition where C104 is discharging and terminal No. 15 is kept at lower potential.
In this condition, current flows to terminal No. 3, the LED for self timer flickers and the piezoelectric element emits vibrating sound.

(2) When C104 is charged to about 1.8 V, terminal No. 2 is set at 0 V, RY101 is energized to release the mirror lock and the shutter is released. Simultaneously, the LED stops flickering and the piezoelectric element emits vibrating sound.

(3) Oscillation of 2 Hz is prepared by terminal No. 7 of IC101 and C102, whereas oscillation of 3 kHz is generated by terminal No. 6 of and C103. These oscillations are combined in IC101 for flickering the LED and vibrating the piezoelectric element.

3-6 Mirror Lock Circuit



(1) Terminal No. 9 is always kept at a voltage 1.1 V lower than the "+" power supply by RV102 and the constant current circuit formed in IC101 regardless of battery voltage variation.

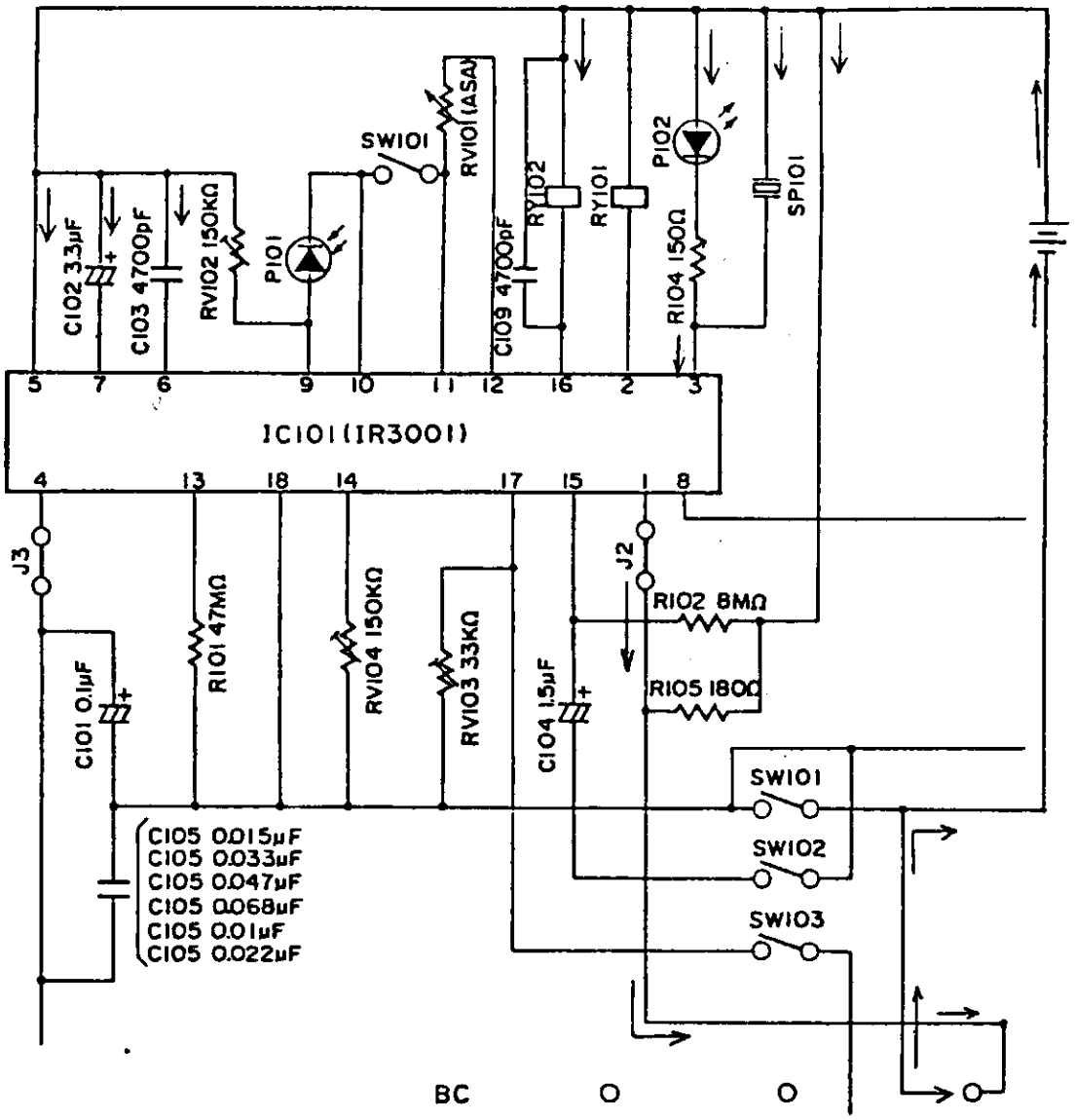
(2) Voltage on terminal No. 5 is compared with that on terminal No. 9 in IC101.

(3) When power supply voltage is 2 V or higher, terminal No. 2 is set at 0 V and RY101 is energized. The mirror is not locked accordingly.

(4) When power supply voltage is lower than 2 V, terminal No. 2 is set at the same voltage as the "+" power supply and RY101 is not energized.

(5) Since RY101 is not energized, the mirror lock is effective. Even if it is attempted to release the shutter, the mirror is locked and the shutter does not operate.

3-7 Battery Check Circuit

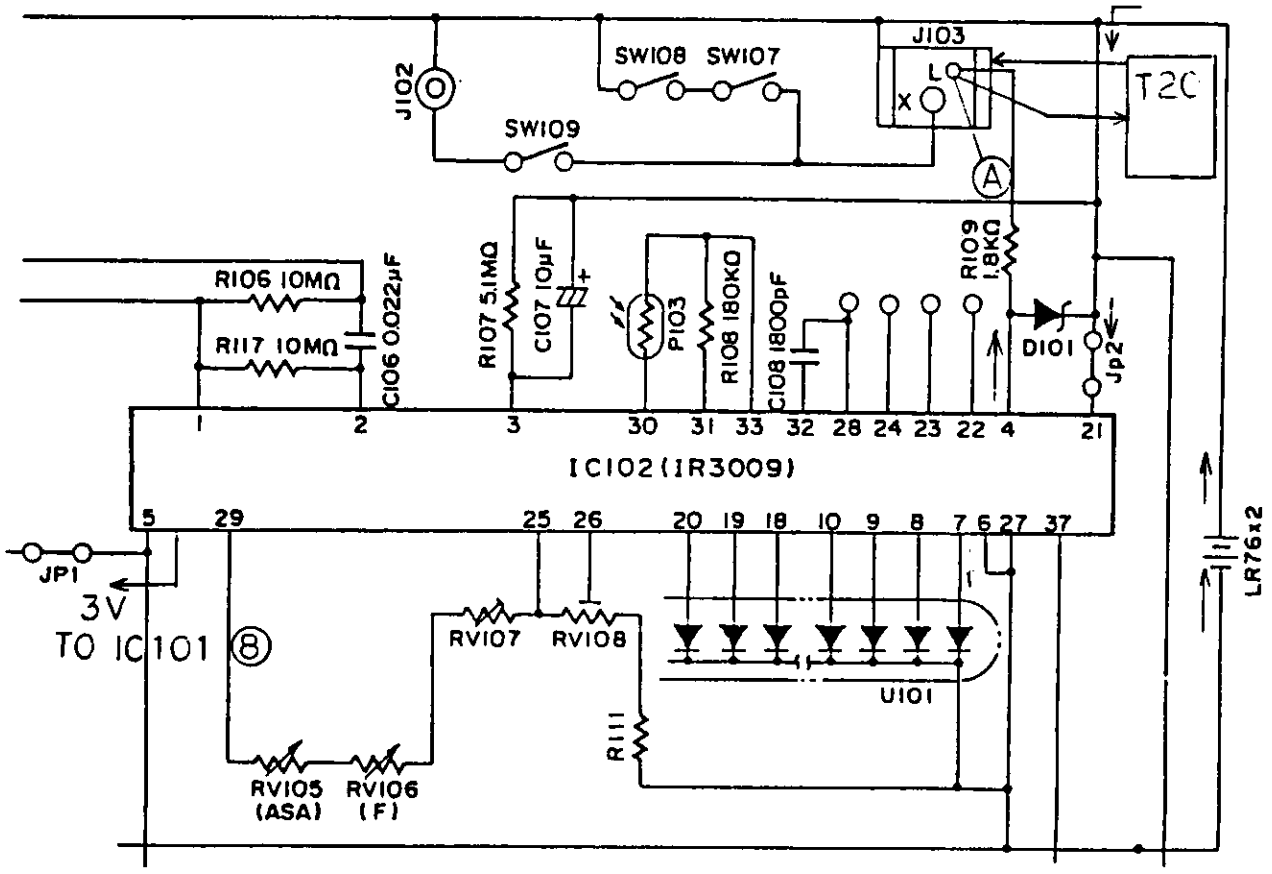


(1) When SW105 is set at CHECK, the internal circuit of IC101 is set nearly in operating condition.

(2) Since R105 has resistance nearly the same as that of RY101, it allows current to flow the moment that SW105 is set at CHECK.
This current and current (1) allow to check voltage which is nearly the same as that to be flowed in photographing condition.

(3) For checking battery voltage, RY101 is de-energized for the reason described below:
Since the mirror lock is released once RY101 is energized, checking battery voltage without deenergizing RY101 will make the shutter lock and self timer inoperative.
Therefore, R105 is used in place of RY101 without energizing the latter.

3-8 Circuits Related to Strobe



3-8-1 Automatic switching of X time

(1) When the camera is equipped with T Series Strobe the strobe power switch is turned ON, current flows to terminal of J103 as shown above. (J103 is used as the camera shoe.)

(2) When current flows from terminal No. 4 to terminal A, the transistor connected to terminal No. 5 on IC102 is made conductive. Electrical continuity is established between terminals No. 21 and No. 5 accordingly.

(3) Voltage on terminal 5 (3 V) transmits to terminal No. 8 of IC101, thereby setting X time automatically.

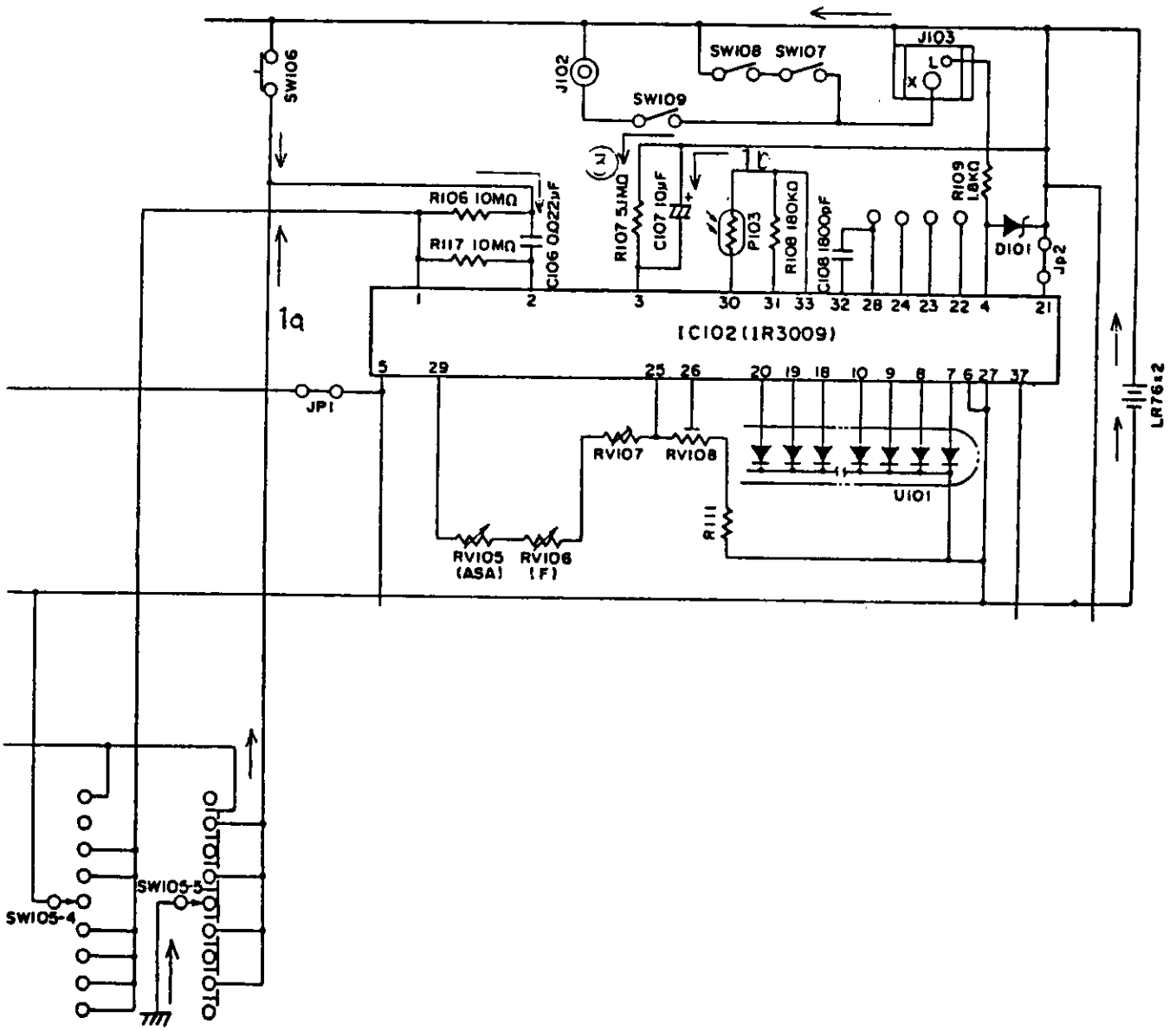
3-8-2 Indications of strobe charging and light intensity control

(1) Before the strobe is charged, only a low current flows from terminal No. 4 of IC102 to terminal A and the transistor connected to terminal No. 7 of IC102 is made non-conductive.

(2) When the strobe is charged up, the current increases and the transistor is made conductive to light the strobe indicating LED.

(3) During control of light intensity from the strobe, current flows to it intermittently to flicker the strobe indicating LED.

3-9 Indication Time-Constant Circuit (for shutter speed indication)



(1) When SW105 is turned ON, Current 1a flows through C106 to energize the hold circuit in IC102. (Level generator circuit)
Since this operation is performed by SW105–5, the pulse generator circuit is deenergized at the ON position. Simultaneously, C107 is charged by current 1b.

(2) When the hold circuit is energized, the indication circuit is energized for indicating shutter speed.

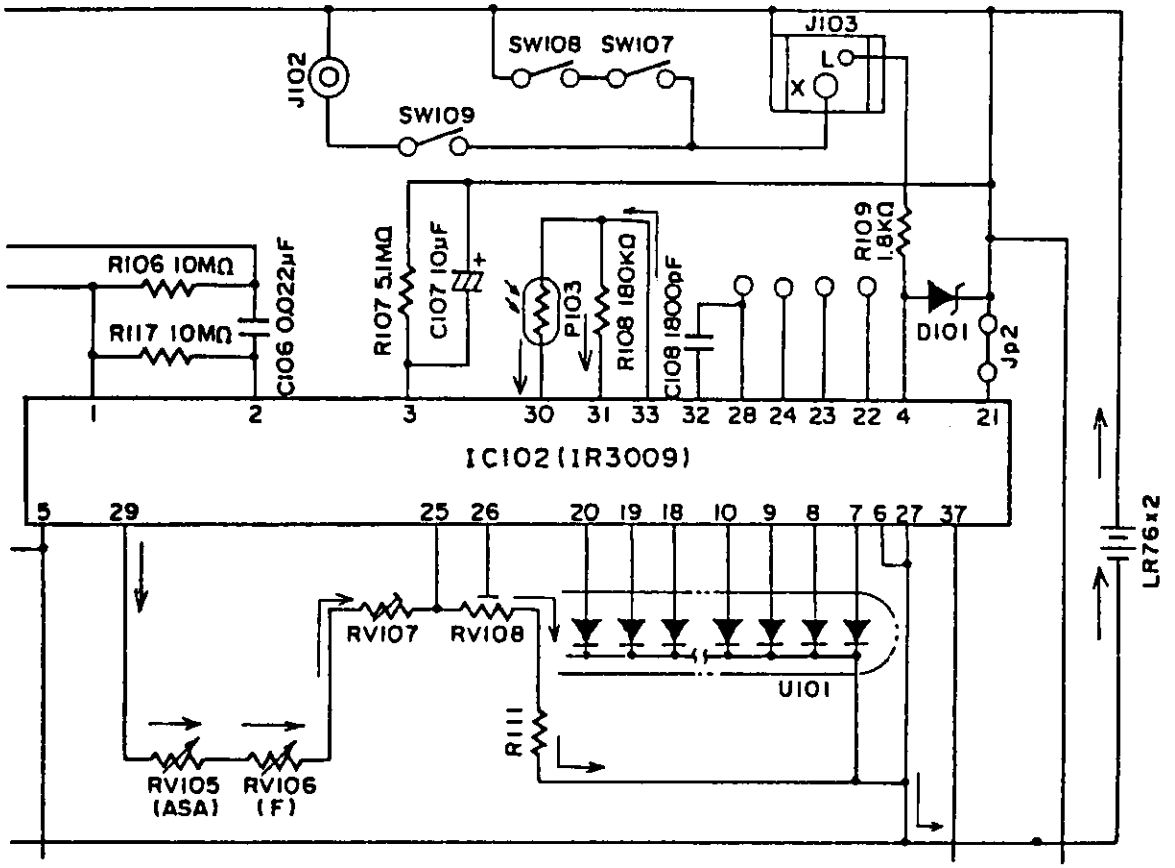
(3) When the hold circuit is energized, C107 starts discharging [current ③]. (The time-constant circuit starts operating.)

(4) When C107 discharges until the "+" side voltage reaches the standard level, the hold circuit is disconnected. About 90 seconds is required to each this stage.

(5) The indication disappears when the hold circuit is deenergized.

(6) Since SW105 and SW106 are connected in series to each other, indication starts by turning either of these switches.

3-10 CdS Cell Circuit



(1) Current flows from terminal No. 33 through terminals Nos. 30 and 29 to RV105 ~ RV106.

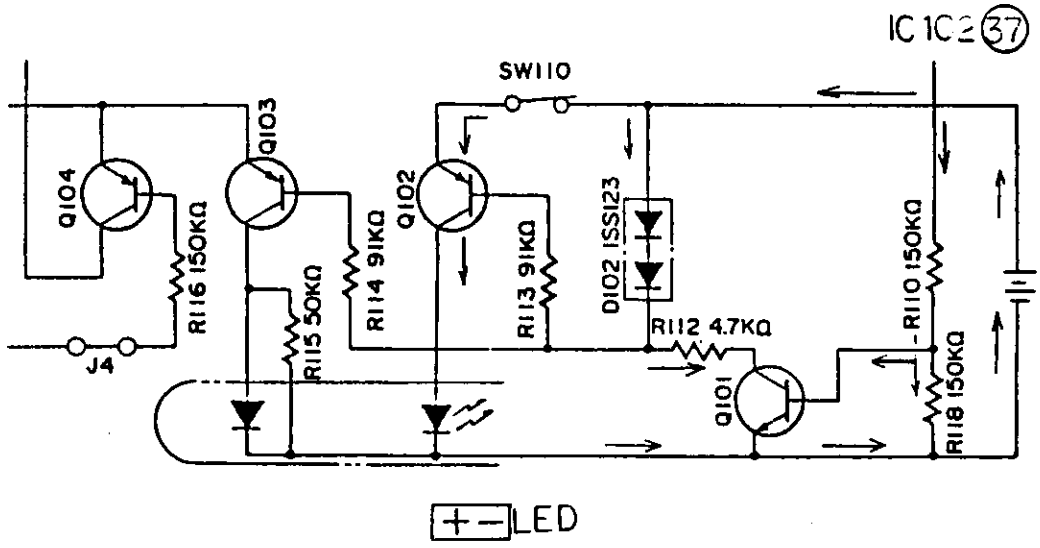
(2) IC102 generates high voltage (on terminal No. 30) to be fed to the CdS cell when light intensity is high or low voltage when light intensity is low.

(3) Voltage (2) mentioned above is measured taking the voltage having passed through R108 (voltage on terminal No. 31) as standard. LEDs for OVER ~ 1 sec indications are lit based on this measured value.

3-11 "+" and "–" Exposure Correction Indication Circuit

During operation of indication time-constant circuit described in 3-9 above, 3 V is outputted to terminal No. 37 of IC102. When the ASA dial is turned for exposure correction, SW110 is turned ON and Q102 is made conductive to light the "+" or "–" LED.

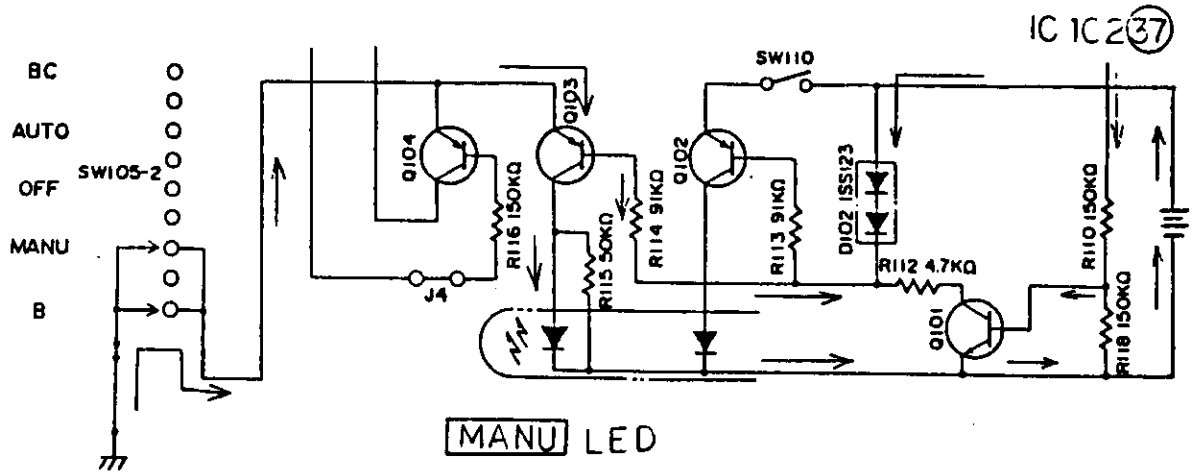
When power supply voltage is high, base of Q101 is set at high voltage and a high current flows to D102. When base voltage is low, a low current flows to D102 and the current flowing to D102 is kept constant. Therefore, luminance of the LED is kept constant regardless of variation of current or voltage.



3-12 MANUAL Indication Circuit

During operation of the indication time constant circuit described in 3-9 above, +3 V is outputted to terminal No. 37 of IC102. When selector dial SW105 is set at MANUAL or B, Q103 is made conductive to light the MANU indicating LED.

Luminance of the LED remains unchanged since base voltage of Q103 is kept constant by the circuit of Q101, D102 and R112 regardless of power supply voltage variation.



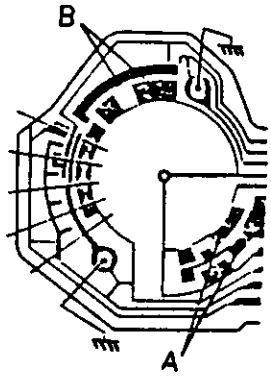
3-13 Connections of Selector Switch (SW-5)

SW105 is provided as the mode selector switch. Since it is of the interlocked type, plural contacts are connected with a single operation of the switch.

(1) AUTO mode

A. Connected to ground "+" through IR3001 ④ → (R103).

B. Connected to IR3009 ① → "−" (negative) Indication starts in the viewfinder.

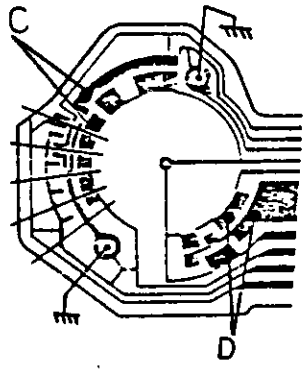


(2) B. CHECK mode

C. Connected to IR3001 ① → "–" (negative) The B. CHECK LED lights and piezo-electric element emits vibrating sound.

(3) OFF

D. Connected to "+" (ground) through IR3001 ④ → (R103).

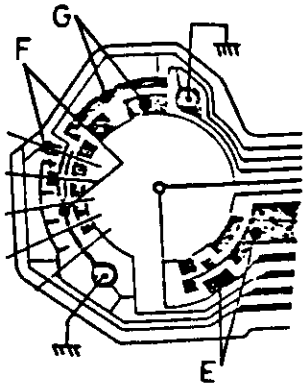


(4) MANUAL mode

E. Connected to "+" (ground) through IR3001 ④ → (RV109).

F. Connected to Q104, Q103 → "+" (ground)

G. Connected to IR3009 ① → "–" (negative)

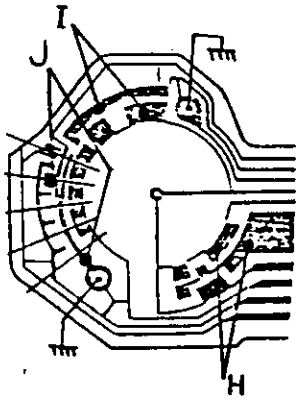


(5) B. (bulb) mode

H. Connected to "+" (ground) through IR3001 ④ → (RV103)

I. Connected to IR3009 ① → "–" (negative) Connected to "+" (ground) through IR3001 ⑰ → (SW103) (shutter unit)

J. Connected to Q104, Q103 → "+" (ground)



Since SW105–5 is connected in parallel to SW106 (touch switch), C106 is connected to "+" each time the switch is set for a mode other than OFF. Indication starts in the viewfinder in the same manner as that obtained by turning ON SW106.

J. OTHERS

LIST OF PARTS COMMONLY USED

PART NO.	OM 10	OM10 TYPE 2	OM G
CA738100	O		
CA796300	O		
CA807600	O	O	
CA840400	O	O	O
CA841800	O		
CA841900	O	O	O
CA842100	O		
CA842200	O		
CA842300	O		
CA843100	O	O	O
CA843400	O		
CA843700	O		
CA844300	O		
CA844600	O		
CA844700	O		
CA844800	O		
CA846300	O	O	O
CA847900	O		
CA849900	O	O	O
CA852300	O		
CA853100	O		
CA853200	O		
CA858600	O		
CA858900	O		
CA859800	O	O	
CA871600	O		
CA872200	O	O	O
CA877000	O	O	O
CA881600	O		
CA881700	O		
CA881800	O		
CA881900	O		
CA882100	O		
CA882400	O		
CA882600	O		
CA882700	O		
CA884100	O		
CA884300	O		
CA884800	O		
CA884900	O		

PART NO.	OM 10	OM10 TYPE 2	OM G
CA885100	O	O	O
CA885200	O		
CA885700	O		
CA885900	O		
CA886100	O		
CA886400	O	O	O
CA888800	O	O	O
CA889000	O		
CA890000			O
CA907000	O		
CA908400	O	O	
CA910600	O	O	O
CA910700	O	O	O
CA915500	O	O	O
CA915600	O		
CA917000	O	O	O
CA917400	O		
CA917500	O		
CA917600	O		
CA919200	O		
CA937400	O		
CA937700	O	O	O
CA937[illegible]	O		
CA938000	O		
CA946400	O		
CA948800	O		
CA949100	O		
CA949400	O		
CA961100		O	
CA965500	O		
CA968800	O		

PART NO.	OM 10	OM10 TYPE 2	OM G
CE057800	O		O
CE058200	O		O
CE066500	O		O
CE067300	O		
CE070600	O		
CE070700	O		
CE071600	O		
CE073000	O	O	
CE082200	O		
CE082300	O		
CE088300	O		
CE088400	O		
CE094000	O	O	
CE100100	O		
CE100200	O		
CE100300	O		
CE100400	O		
CE112200	O		
CE114600	O	O	O
CE126600	O		
CE126800	O		
CE126900	O	O	O
CE127000	O	O	O
CE127200	O	O	O
CE127400	O		
CE127500	O		
CE127600	O	O	O
CE128300	O	O	O
CE128600	O	O	O
CE128800	O	O	O
CE128900	O	O	O
CE129200	O		O
CE129300	O	O	O
CE129400	O		
CE129600	O		
CE129700	O		O

PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G	
CE200100	O				CE210300	O	O			CE220100	O			
CE200500	O				CE210800	O	O	O		CE220200	O			
CE200600	O	O			CE211000	O	O			CE220300	O			
CE200700	O				CE211100	O	O	O		CE220500	O			
CE200900	O				CE211200	O	O			CE221600	O			
CE201000	O	O			CE211300	O	O	O		CE222700	O			
CE201400	O	O			CE211400	O	O			CE223100	O			
CE201600	O	O			CE211500	O	O	O		CE223500	O			
CE201700	O	O			CE211600	O	O			CE223700	O			
CE201800	O	O	O		CE211700	O	O	O		CE223800	O			
CE202200	O	O			CE211800	O				CE223900	O			
CE202400	O	O			CE212000	O	O	O		CE224000	O			
CE202500	O	O			CE212100	O	O	O		CE224100	O			
CE202800	O	O			CE212700	O				CE224200	O	O		
CE203100	O	O			CE212800	O								
CE203200	O	O			CE213100	O								
CE203300	O	O			CE213300	O	O	O						
CE203400	O	O			CE213400	O	O	O						
CE203600	O	O			CE214000	O	O	O		CE230100	O			
CE203700	O	O			CE214100	O				CE230300	O			
CE203800	O	O			CE214200	O				CE230500	O	O	O	
CE204100	O	O			CE214300	O		O		CE231400	O	O		
CE204300	O	O			CE214400	O				CE232400	O			
CE204400	O	O			CE214500	O				CE232500	O			
CE204600	O	O			CE214700	O				CE236300		O	O	
CE204700	O	O			CE214800	O		O		CE236400	O	O		
CE205500	O	O			CE214900	O		O		CE236500	O			
CE205600	O	O			CE215000	O				CE236600	O	O	O	
CE205700	O				CE215100	O		O		CE236700	O			
CE205900	O	O			CE215200	O		O		CE236800	O			
CE206100	O	O			CE215300	O				CE236900	O			
CE206200	O	O			CE215500	O		O		CE237000	O			
CE206300	O	O			CE215600	O		O		CE237300		O	O	
					CE215700	O		O		CE237500		O	O	
					CE216100	O		O						
					CE216200	O								
					CE216400	O								
					CE216500	O		O						
					CE216600	O								
					CE216900	O	O	O						

PART NO.	OM 10	OM10 TYPE 2	OM G
CE240100	○		
CE240200	○		
CE240300	○		
CE240400	○		
CE240800	○		
CE240900	○		
CE241300	○		
CE241400	○		
CE241600	○		
CE241700	○		
CE241800	○		
CE241900	○		
CE242000	○	○	○
CE242200	○		
CE242300	○	○	○
CE244200	○		
CE244400	○		
CE244600	○		
CE244900	○		
CE245100	○		
CE245500	○		
CE245600	○		
CE246100	○		
CE246200	○		
CE246300	○		
CE246400	○		
CE246500	○		
CE246800	○		
CE246900	○		
CE247200	○	○	○
CE247300	○	○	○
CE247400	○	○	○
CE248100	○	○	○

PART NO.	OM 10	OM10 TYPE 2	OM G
CE250200	○	○	○
CE250300	○	○	
CE250400	○	○	
CE250500	○	○	
CE250700	○	○	
CE250800	○	○	
CE250900	○		
CE251100	○	○	○
CE251400	○		○
CE251500	○	○	○
CE251600			○
CE251700	○		○
CE251800	○		
CE252600	○	○	
CE252800	○		○
CE253000	○	○	
CE253100	○	○	
CE253200	○	○	
CE253300	○		
CE253400	○	○	
CE253500	○	○	○
CE253600	○	○	○
CE253700	○	○	
CE253900	○		
CE254500	○		
CE254600	○	○	○
CE254700	○	○	
CE254800	○	○	
CE254900	○	○	
CE255000	○	○	
CE255300	○	○	
CE255500	○	○	
CE255600	○	○	
CE255700	○	○	
CE255800	○	○	
CE255900	○	○	
CE256800		○	○
CE257400		○	○
CE257900		○	○

PART NO.	OM 10	OM10 TYPE 2	OM G
CE258000		○	○
CE258100		○	○
CE258200		○	○
CE258500		○	○
CE258600		○	○
CE259000			○
CE259400		○	○
CE259500			○
CE259600		○	○
CE260300	○		
CE261500	○	○	
CE261600	○		
CE261700		○	
CE262100		○	
CE262200	○	○	
CE262300	○	○	
CE262500	○	○	
CE263300	○		
CE264600		○	
CE264700		○	
CE265400	○	○	
CE265500	○	○	
CE265600	○	○	
CE265700	○	○	
CE265800	○	○	
CE265900	○	○	
CE266000	○	○	
CE266500		○	○
CE266600		○	
CE266700			○
CE267800		○	

PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G	
CE267900	O	O	O		CE470100		O			CE496700		O	O	
CE268500		O			CE470200		O	O		CE496800		O		
CE268700		O			CE470300		O	O		CE497600		O		
CE269300		O	O		CE470400		O	O		CE497700		O		
CE269600		O	O		CE470500		O	O		CE498200		O	O	
CE269800		O			CE471100		O	O		CE498500		O	O	
CE269900		O	O		CE471400		O	O		CE498600		O		
					CE472400		O	O						
					CE473000			O						
					CE473100			O						
					CE480900		O	O						
					CE481000		O	O						
CE277900	O	O			CE481100		O	O						
					CE483100			O						
CE349500		O	O		CE483200			O						
					CE485900			O						
					CE490400		O	O						
CE440100					CE490700		O	O						
CE443200					CE490900		O	O						
					CE491100		O	O						
					CE491300		O	O						
					CE491400		O	O						
					CE491500		O	O						
					CE491800		O	O						
CE460600		O	O		CE492800		O	O						
CE460900		O	O		CE492900		O	O						
CE461500		O	O		CE493100		O	O						
CE461600		O	O		CE493800		O	O						
CE461700		O	O		CE493900		O	O						
CE461800		O	O		CE494000		O	O						
CE462000		O	O		CE494700		O	O						
CE462200		O			CE494900		O	O						
CE462400		O	O		CE495300		O	O						
CE462700		O	O		CE495400		O	O						
CE462900		O			CE495700		O	O						
CE463000		O	O		CE495800		O	O						
CE463200		O			CE495900		O	O						
CE463300		O	O		CE496200		O	O						
CE463600			O		CE496600		O	O						
CE464400			O											
CE464500			O											

PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G	
CE420300			O		CE429400			O		CE450500			O	
CE420500			O		CE429500			O		CE451100			O	
CE420600			O		CE429600			O		CE451200			O	
CE420700			O		CE429700			O		CE451300			O	
CE420800			O							CE451700			O	
CE420900			O							CE452800			O	
CE421000			O											
CE421600			O											
CE421700			O		CE430600			O						
CE421800			O		CE431100			O						
CE421900			O		CE431500			O						
CE422000			O		CE431600			O						
CE422100			O		CE431700			O						
CE422500			O		CE432100			O						
CE422800			O		CE434200			O						
CE422900			O											
CE423000			O											
CE423200			O											
CE423400			O											
CE423500			O											
CE423600			O											
CE424400			O											
CE425000			O											
CE425500			O											
CE425700			O											
CE425800			O											
CE426200			O											
CE426400			O											
CE426500			O											
CE427400			O		CE441100			O						
CE427500			O		CE441200			O						
CE427900			O		CE441300			O						
CE428000			O		CE441800			O						
CE428100			O		CE442000			O						
CE428300			O		CE442100			O						
CE428700			O		CE442400			O						
CE429300			O		CE443100			O						
					CE445500			O						

PART NO.	OM 10	OM10 TYPE 2	OM G		PART NO.	OM 10	OM10 TYPE 2	OM G		PART NO.	OM 10	OM10 TYPE 2	OM G	
ZC102900	O				ZC201400	O				ZC424800		O		
ZC103000	O				ZC201500	O				ZC424900		O		
ZC104100	O				ZC201600	O				ZC426800			O	
ZC106700	O				ZC201700	O				ZC426900			O	
ZC107800	O	O	O		ZC201800	O				ZC427000			O	
					ZC202100	O				ZC427400			O	
					ZC202200	O				ZC427500			O	
					ZC202300	O				ZC427600			O	
					ZC202400	O				ZC428000			O	
					ZC202500	O				ZC428100			O	
ZC133200	O				ZC202600	O				ZC428200			O	
ZC135500	O				ZC202700	O				ZC428300			O	
ZC137300	O				ZC206100	O	O			~~ZC428500~~				
ZC137400	O				ZC207200	O	O			ZC428600			O	
ZC138400	O				ZC207300	O	O			ZC429300			O	
										ZC429600			O	
					ZC207500	O	O			ZC429700			O	
					ZC207700	O	O			ZC429800			O	
					ZC207900	O				ZC429900			O	
ZC161000	O	O	O		ZC208000	O								
ZC162600	O				ZC208100	O								
ZC164100	O	O	O		ZC208200	O	O							
ZC179700	O				ZC208300	O	O							
ZC182700	O	O	O		ZC208400	O								
ZC182800	O	O	O		ZC208500	O	O			ZC501500			O	
ZC182900	O	O	O		ZC210800	O				ZC501600			O	
ZC183000	O	O	O		ZC211100	O				ZC502200		O	O	
					ZC212900	O				ZC502300		O	O	
					ZC213100	O	O							
					ZC213200	O								
ZC200200	O	O												
ZC200300	O				ZC423400		O							
ZC200500	O	O			ZC423500		O							
ZC200600	O				ZC424200		O							
ZC200800	O				ZC424300		O							
					ZC424400		O	O						
					ZC424500		O	O						
					ZC424600		O							
					ZC424700		O							

PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G		PART NO.	OM 10	OM 10 TYPE 2	OM G	
ZJ130600	O				ZJ155000		O			ZJ158900			O	
ZJ130700	O				ZJ155100		O			ZJ159000			O	
ZJ130800	O				ZJ155200		O			ZJ159100			O	
ZJ130900	O				ZJ155300		O	O		ZJ159200			O	
ZJ131000	O				ZJ155400		O			ZJ159300			O	
ZJ131100	O				ZJ155500		O			ZJ159400			O	
ZJ131200	O	O			ZJ155600		O			ZJ159500			O	
ZJ131300	O				ZJ155800		O			ZJ159600			O	
ZJ131400	O				ZJ155900		O			ZJ159700			O	
ZJ131500	O				ZJ156000		O	O		ZJ159800			O	
ZJ131600	O	O	O		ZJ156100		O	O		ZJ159900			O	
ZJ131900	O				ZJ156200		O	O						
ZJ132000	O				ZJ156300		O	O						
ZJ132100	O				ZJ156400		O	O						
ZJ132200	O				ZJ156500		O	O						
ZJ132300	O				ZJ156600		O	O						
ZJ132400	O				ZJ156700		O			ZJ160000			O	
ZJ132500	O				ZJ156800		O	O		ZJ160100			O	
ZJ132600	O	O			ZJ156900		O	O		ZJ160200			O	
ZJ132700	O				ZJ157000		O			ZJ160300			O	
ZJ132800	O	O			ZJ157100		O	O		ZJ160400			O	
ZJ133100	O	O			ZJ157200		O	O		ZJ160500			O	
ZJ139700	O				ZJ157300		O			ZJ160600			O	
					ZJ157400		O	O		ZJ160700			O	
					ZJ157500		O	O						
ZJ144400	O	O			ZJ157600		O	O						
ZJ144500	O				ZJ157700		O	O						
ZJ144600	O				ZJ157800		O	O						
ZJ144700	O				ZJ157900		O	O						
ZJ144800	O	O			ZJ158000			O						
ZJ144900	O				ZJ158100			O						
ZJ145000	O				ZJ158200			O						
ZJ145100	O	O			ZJ158300			O						
ZJ146400	O				ZJ158400			O						
ZJ146500	O				ZJ158500			O						
ZJ146600	O				ZJ158600			O						
ZJ146800	O	O			ZJ158700			O						
ZJ147100	O				ZJ158800			O						
ZJ147500	O	O												

EXPLANATION OF MARKS

(1) Indicates parts that are supplied both as a single piece and as an assembled unit. In the latter case, the single part is incorporated in the assembled unit indicated with the mark (1)
Exception: Parts in the mark ( ) are not supplied in single pieces.
(Parts that are supplied only in single pieces are not indicated with any mark. While parts that are supplied as an assembled unit are prefixed with "Z" or "U".)

] Several types of parts for the same position are available, from which most suitable one is to be selected.

✻ 3 Parts differ according to different models and types. This mark is used to indicate various combinations in a picture.

Left-handed screw. The mate screw hole is not marked particularly.

Indicates parts that should not be touched directly by bare hand because special surface treatment is applied. Wear fingerstalls or use tweezers.

★ Not supplied as a repair part.

Used exclusively for black finish models.

——— Indicates original parts. New, modified ones are not indicated with this mark. Both original and modified parts are supplied.

═══ No more available parts due to design change or out of stock.

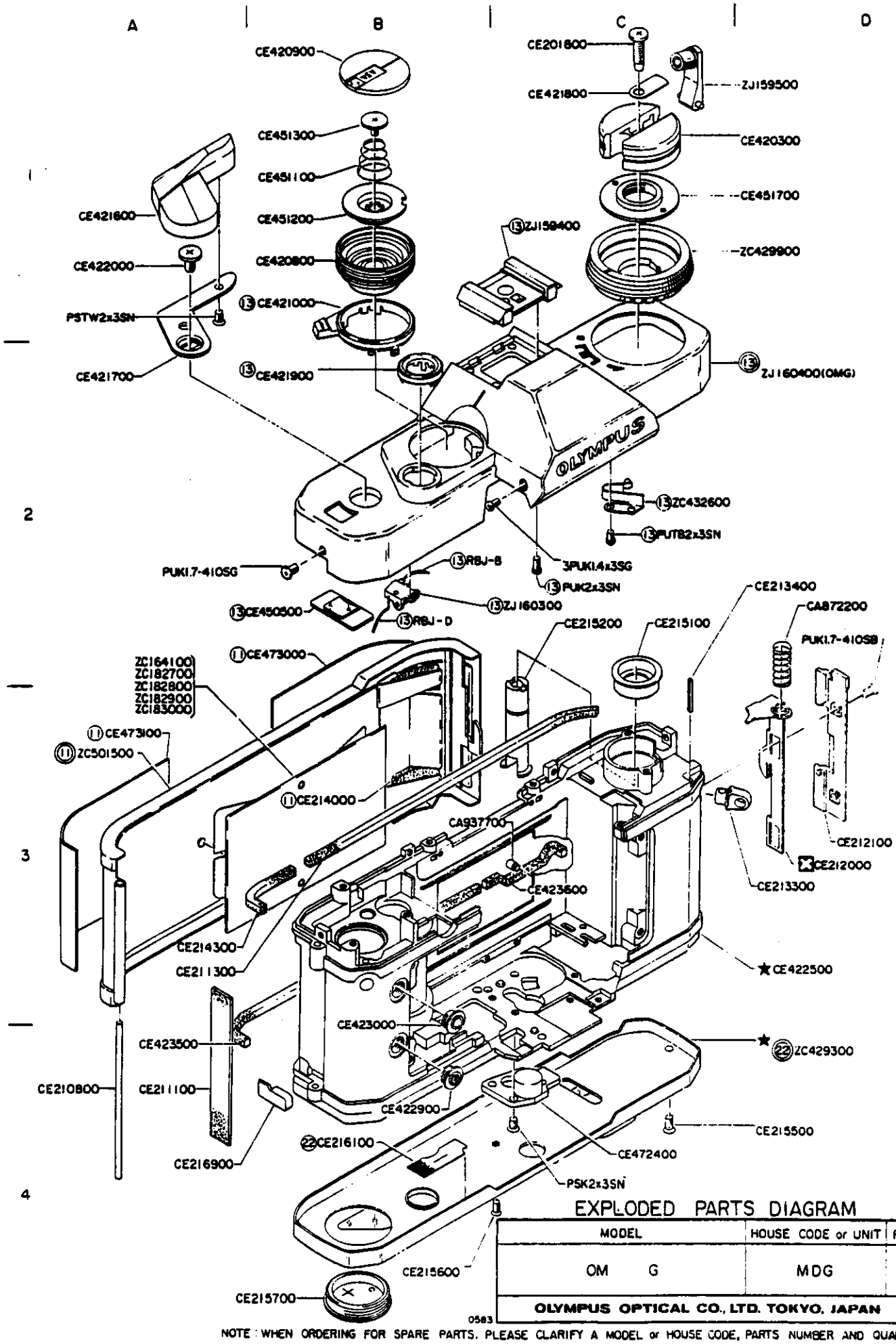
A correction mark. Parts with this mark are not available.

〈 2 〉 Modified parts that are unable to show in the technical manual. The figure indicates reference page number.

2-A3 This notation is entered in the "Remarks" column of parts list and indicates parts position in the technical manual.

2-A3 ┐
 └ Parts position. The technical manual is divided into 16 equal sections. Each section can be identified by using A, B, C and D from left to right and 1, 2, 3 and 4 from top to bottom.

└ Indicates page number in which the technical manual appears. However, 1/1 (page 1 of 1) is not indicated particularly.

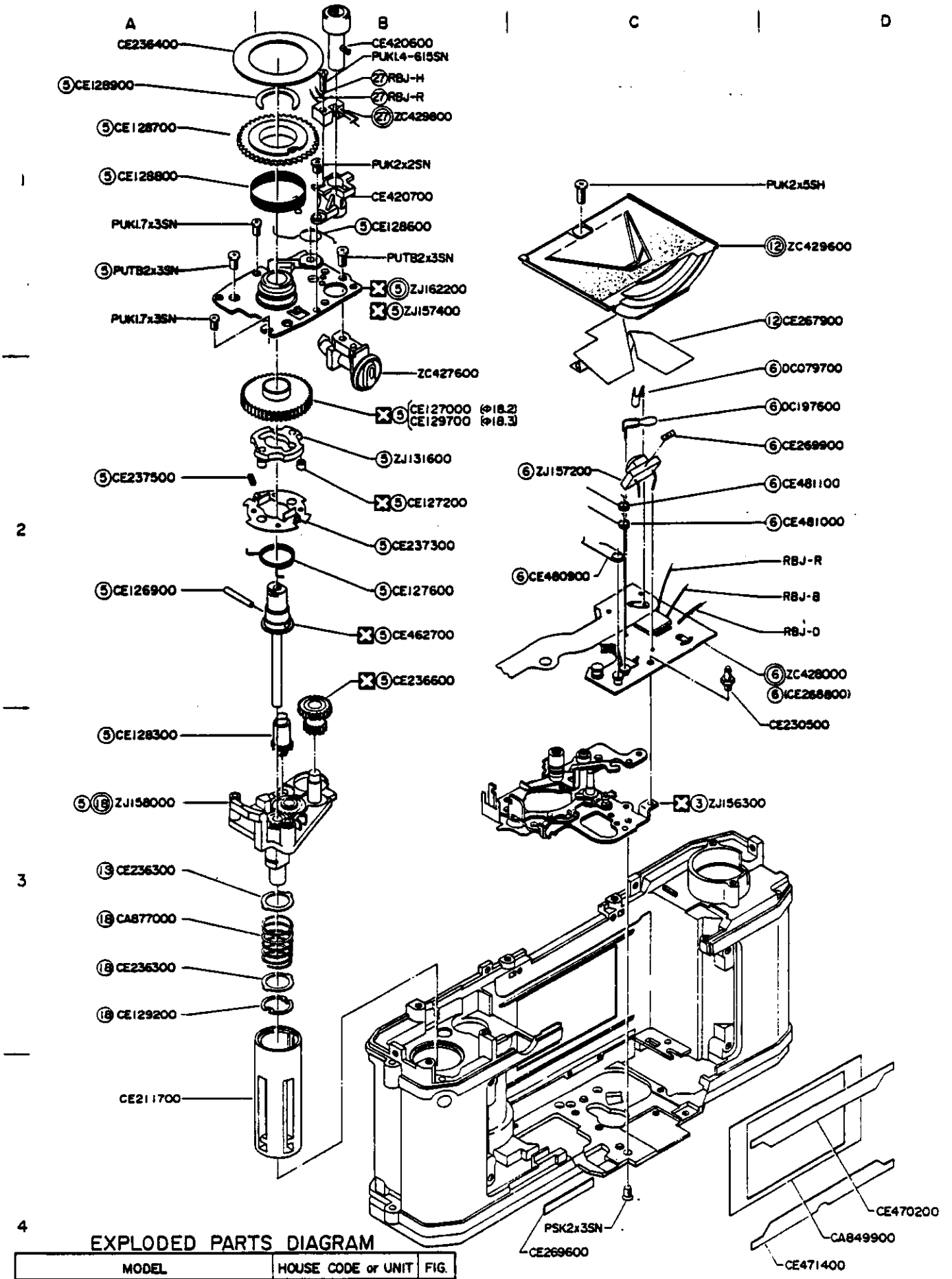


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM G	MDG	1/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0583

NOTE : WHEN ORDERING FOR SPARE PARTS. PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY

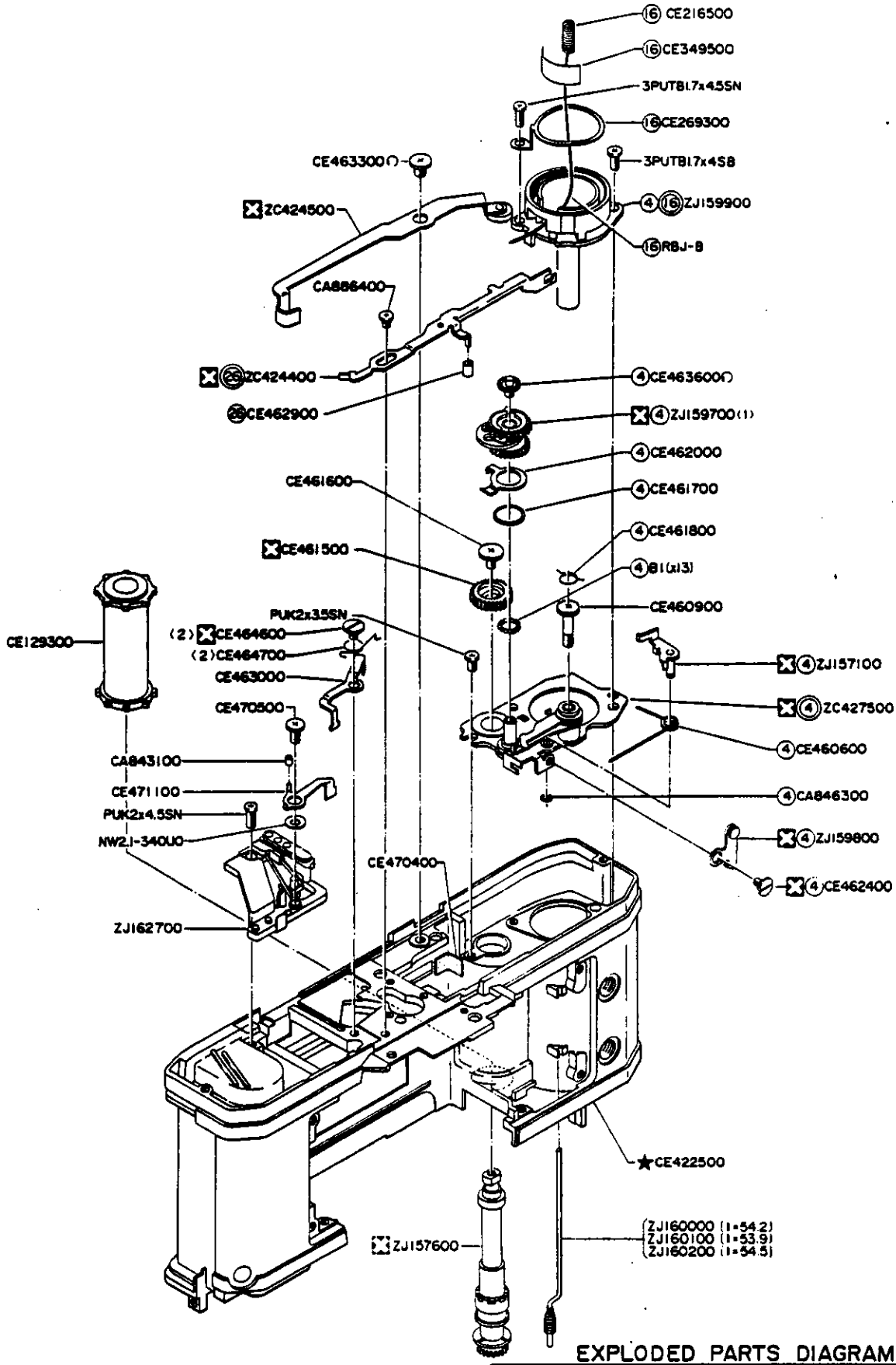


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 & G	MDG	2/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0285

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

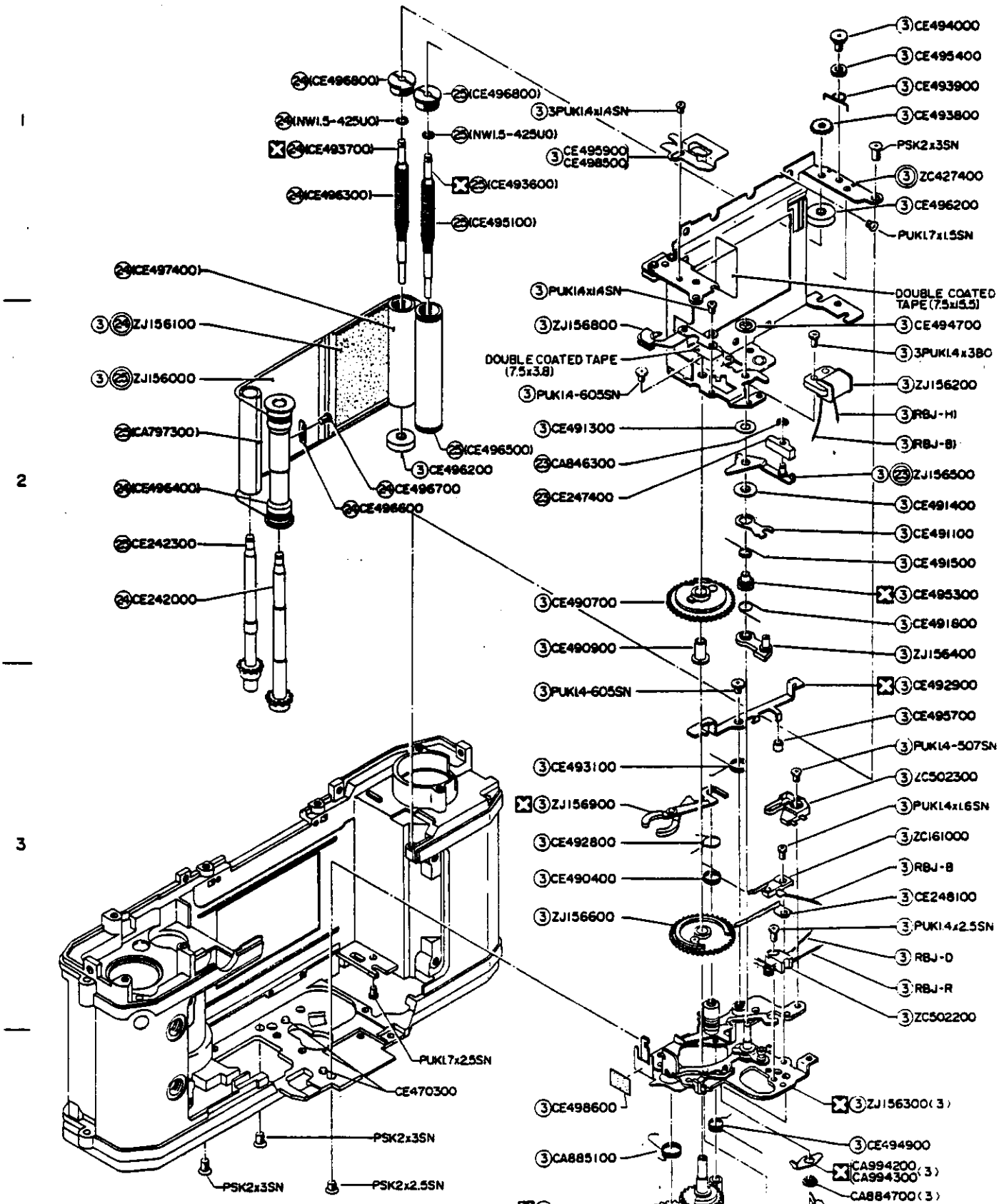


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 & G	MDG	3/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0285

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY

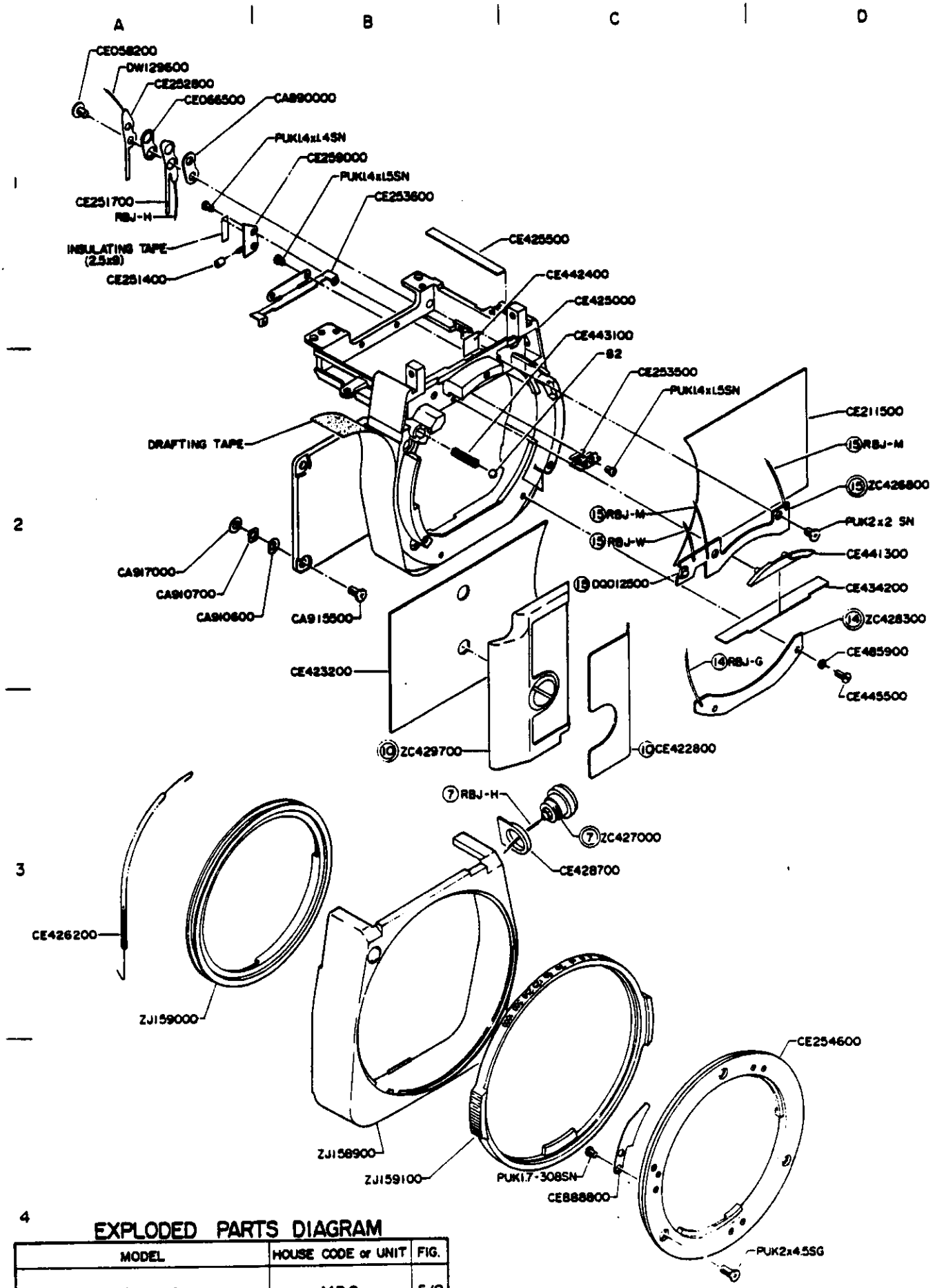


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM 20 & G	MDG	4/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0285

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

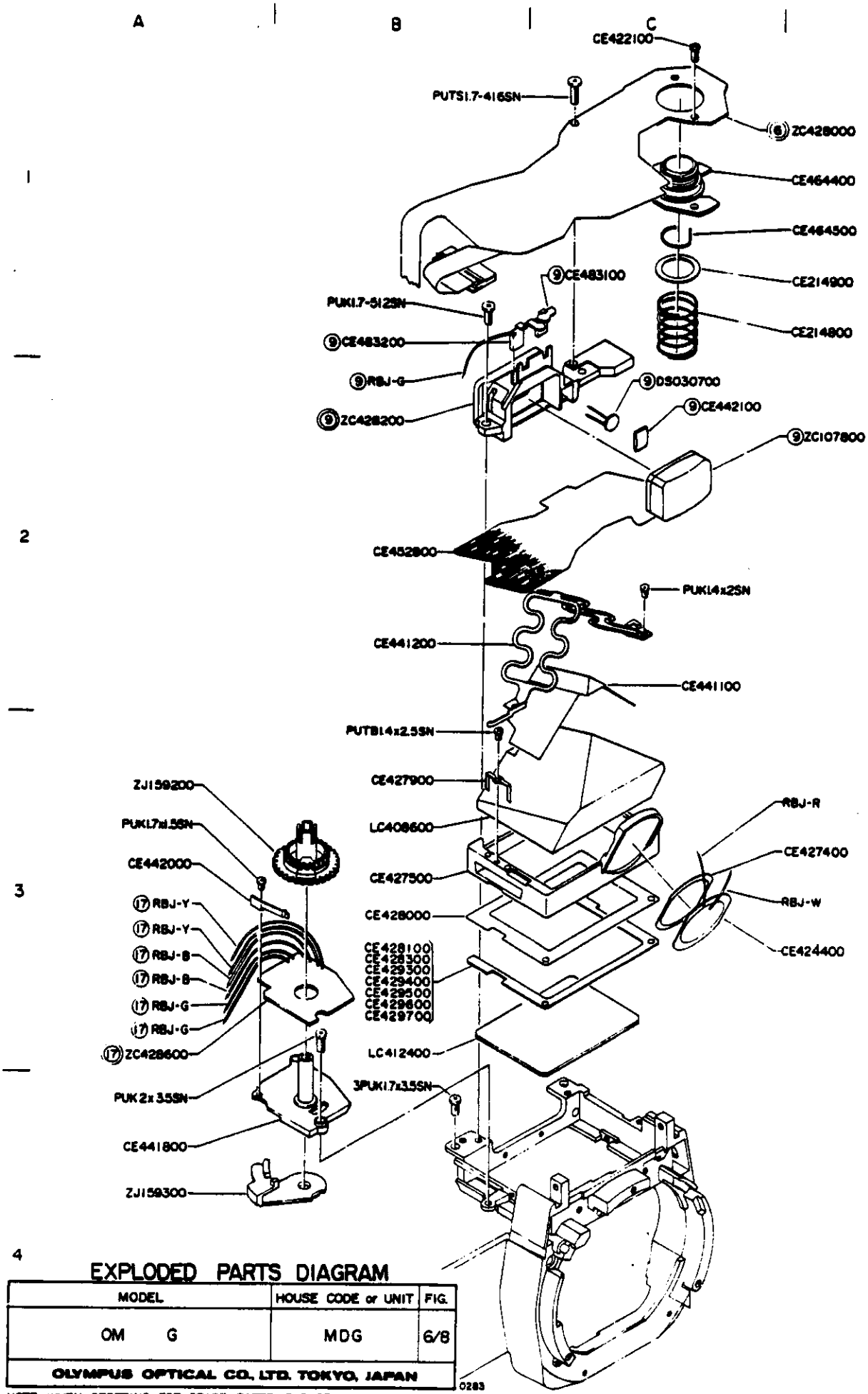


EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM G	MDG	5/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0283

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM G	MDG	6/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0283

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

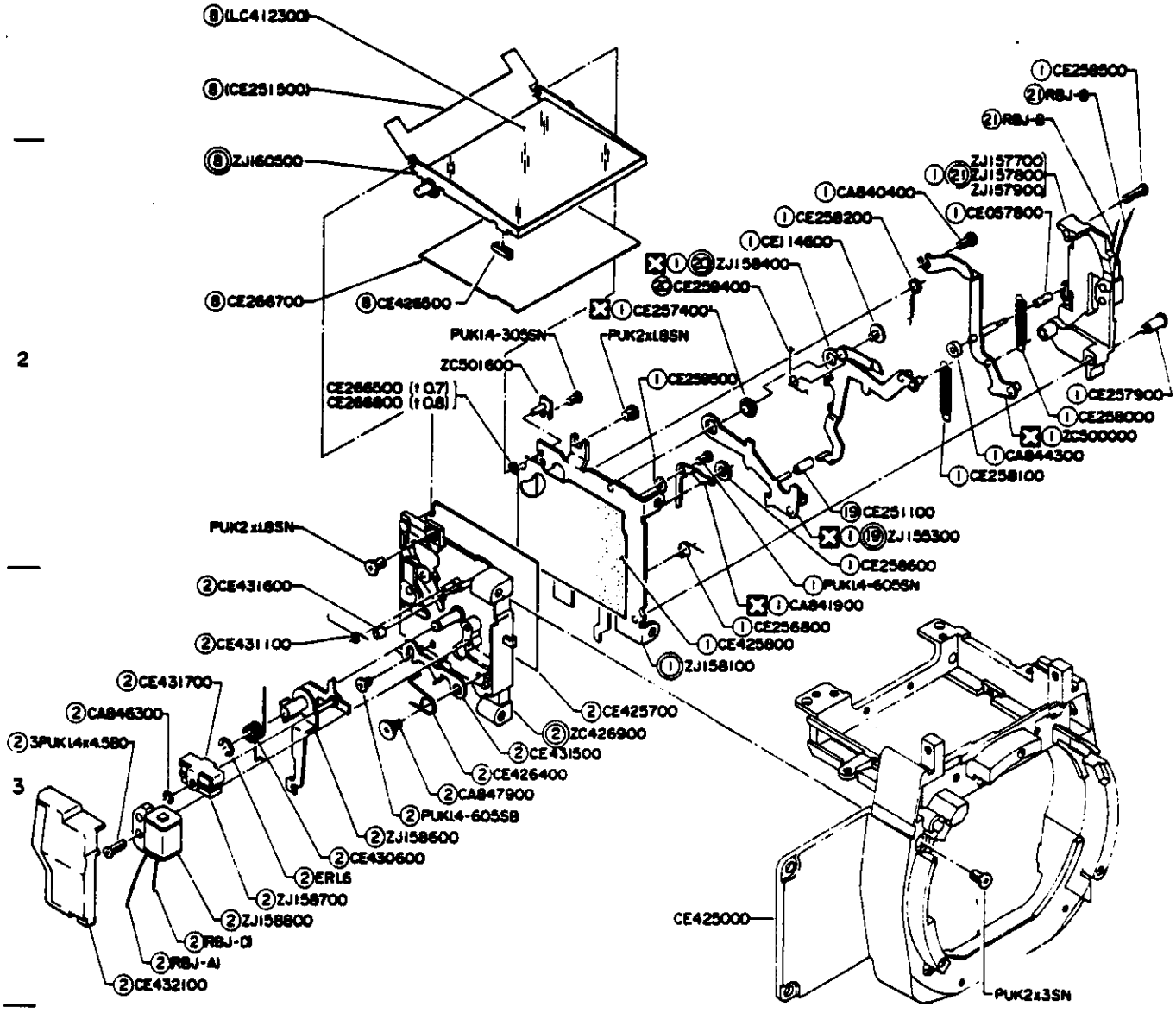
A B C D

1

2

3

4

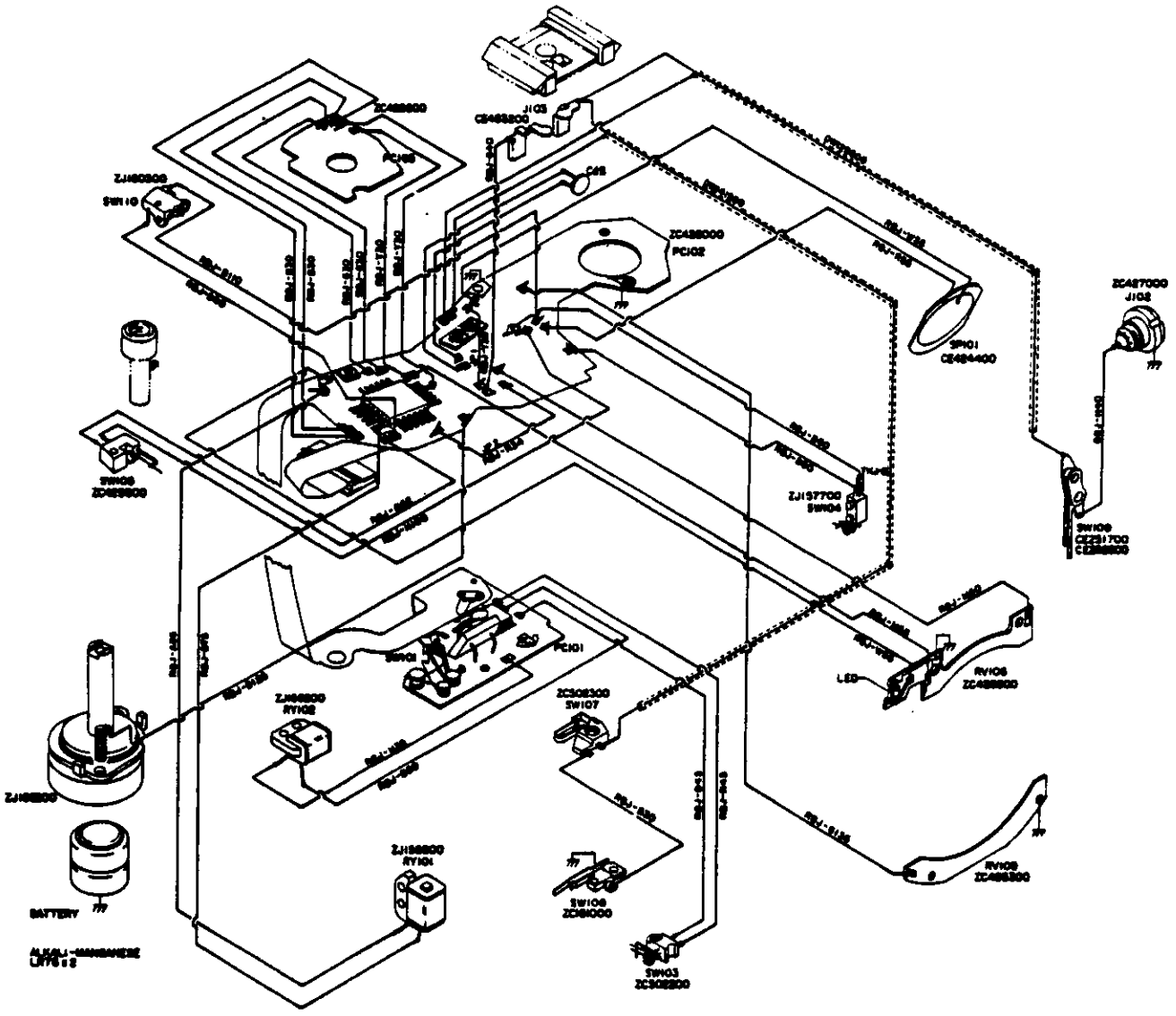


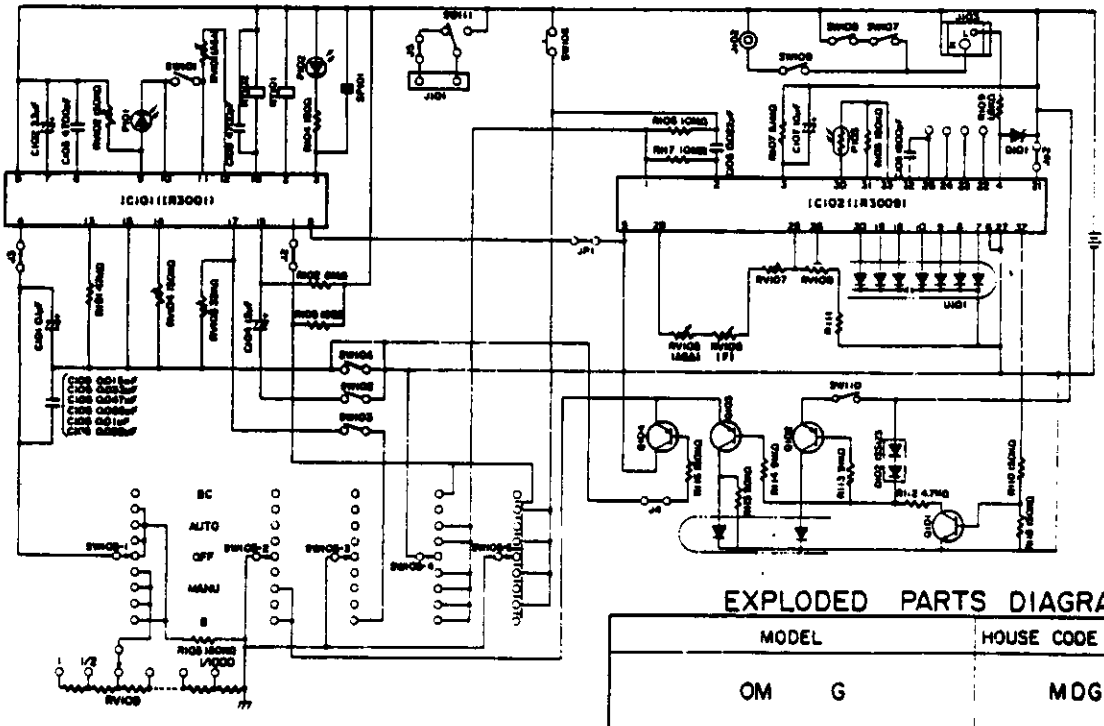
EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM G	MDG	7/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

0283

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.





EXPLODED PARTS DIAGRAM

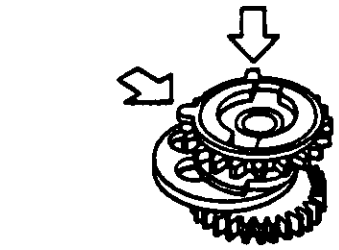
MODEL	HOUSE CODE or UNIT	FIG.
OM G	MDG	8/8
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

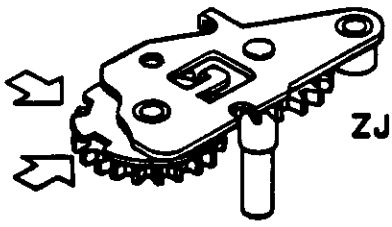
0283

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

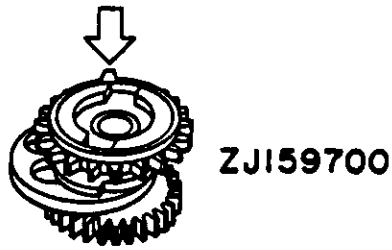
〈1〉

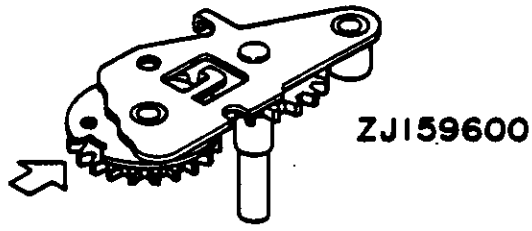
OLD





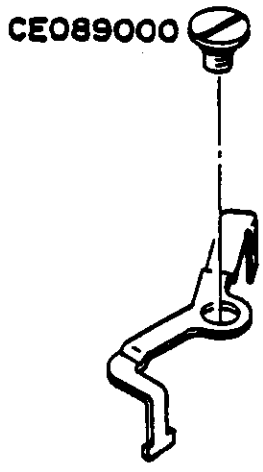
NEW



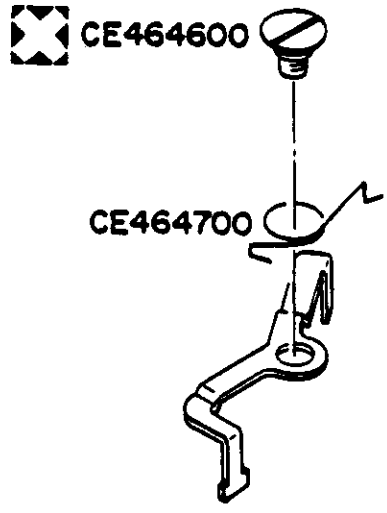


〈2〉

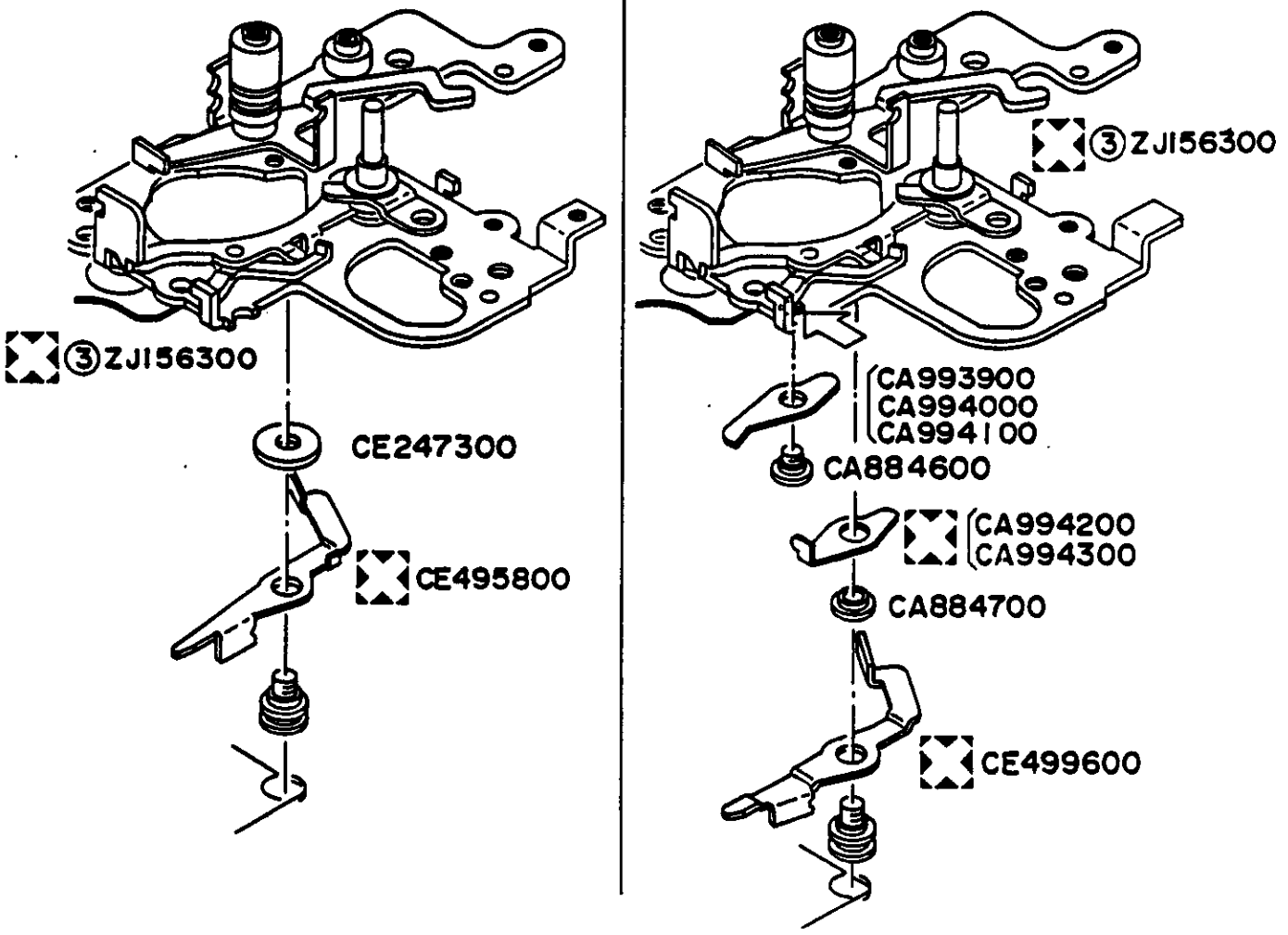
OLD



NEW



OLD (3) NEW


③ZJ156300
CE247300
CE495800
③ZJ156300
CA993900
CA994000
CA994100
CA884600
CA994200
CA994300
CA884700
CE499600